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UNITED STATES DEPARTMENT OF AGRICULTURE

LIBRARY

Number 6

Bibliographical Contributions

August, 1923

Partial List
of
Publications
on
Dairying
Issued in the United States.
1900 to June, 1923.

Compiled by Carrie B. Sherfy, Librarian,
Bureau of Animal Industry,
United States Department of Agriculture.

Washington, D. C.
1923.

UNITED STATES DEPARTMENT OF AGRICULTURE

LIBRARY

Bibliographical Contributions.

- No. 1. A check list of the publications of the Department of Agriculture on the subject of plant pathology, 1837-1913. Prepared in the Bureau of Plant Industry Library. 1919.
- No. 2. Check list of publications of the state agricultural experiment stations on the subject of plant pathology, 1876-1920. Prepared in the Bureau of Plant Industry Library. 1922.
- No. 3. Check list of publications issued by the Bureau of Plant Industry, United States Department of Agriculture, 1901-1920 and by the divisions and offices which combined to form this bureau, 1862-1901. Prepared in the Bureau of Plant Industry Library. 1921.
- No. 4. Bibliography on the preservation of fruits and vegetables in transit and storage with annotations. Prepared in the Bureau of Markets and Crop Estimates Library. 1922.
- No. 5. Index to some sources of current prices. Prepared in the Bureau of Agricultural Economics Library. 1923.
- No. 6. Partial list of publications on dairying issued in the United States. 1900 to June, 1923. Prepared in the Bureau of Animal Industry Library. 1923.

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The Library of the United States Department of Agriculture.

The publications mentioned in this list are contained in the Library of the United States Department of Agriculture. Perhaps a short description of this Library is appropriate here. It is first a scientific and technical library. An enumeration of the scientific bureaus of the Department suggests its scope, since its primary purpose is to supply the literature needed for the investigations of the Department. They are: Bureau of Agricultural Economics, Bureau of Animal Industry, Bureau of Biological Survey, Bureau of Chemistry, Bureau of Entomology, Forest Service, Bureau of Plant Industry, Bureau of Public Roads, Bureau of Soils, and Weather Bureau. It follows that the Library is especially strong in agriculture in all its branches, including animal husbandry and dairying, agricultural statistics, agricultural economics, veterinary medicine, chemistry, economic zoology and entomology, forestry and lumbering, botany, plant pathology, agricultural bacteriology, and meteorology. Most of the bureaus also have libraries, the personnel of which is familiar with the needs of the bureau and the literature of its subject. The books and periodicals in the bureau libraries are, however, part of the collection of the Department Library and are included in its card catalogue, except in the case of the Weather Bureau, whose library is practically independent. The Department Library does little indexing of journals, but several of the bureau libraries keep valuable card indexes to the periodical literature pertaining to their subjects. For example, a large part of the work of the Bureau of Animal Industry Library consists in indexing the literature of animal diseases and of dairying. In other divisions of the same bureau are maintained an index to medical and veterinary zoology, the earlier portion of which has been published as Bureau of Animal Industry Bulletin 39, and an index to the literature of poisonous plants.

The Department of Agriculture library is not officially connected with the Library of Congress, but is able to borrow freely from that and from other Washington libraries material needed for use in the investigations of the Department. It lends from its own collections for purposes of research to various libraries and institutions throughout the country, but especially to the State Agricultural Experiment Stations, whose work is along similar lines but which are unable to afford so complete a collection. While the first duty of the Library is to serve the Department, it aims to render as wide a service as possible.

It can safely be said that no other library has so complete a collection of local, state, and national official publications of American and foreign institutions and organizations which have to do with agriculture and the related sciences. Approximately 3,000 periodicals are received currently, exclusive of serials such as annual reports, proceedings, and the like. A list of both periodicals and serial publications now being received has recently been published as U. S. Department of Agriculture Circular 187. While exchanges are being received from all parts of the world, constant vigilance is necessary in order to keep the library on the mailing lists and to learn of and request new publications, and there are many gaps in its collections. The cooperation of publishing institutions in keeping up its collections is earnestly solicited. The Library is usually able to offer in exchange such publications of the Department as are of especial interest to the donor of books to the Library.

THE HISTORY OF THE UNITED STATES

The history of the United States is a story of growth and change. It begins with the first settlers, who came to the Americas in search of a new life. They found a land of opportunity, but also one of hardship. The early years were marked by struggle and sacrifice, as the settlers fought to establish a new society. Over time, the United States grew from a small colony into a powerful nation. It was a process of constant evolution, shaped by the dreams and aspirations of its people. The story of the United States is a testament to the power of the human spirit and the ability of a nation to overcome adversity. It is a story of hope and progress, of a people who have built a great land out of nothing. The history of the United States is a story that continues to inspire and challenge us today.

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C O N T E N T S.

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A B B R E V I A T I O N S.

A.I.....animal industry	no.....number
agr.....agriculture, agricultural	off.....office
anim....animal	p.....page
bul.....bulletin	pop.....popular
bur.....bureau	pt.....part
circ....circular	pub.....published, publication
dept....department	reg.....regulatory
D.D.E...dairy division extension	res.....research
ed.....edition	rev.....revised, revision
enl.....enlarged	sec.....secretary
expt....experiment	sep.....separate
ext.....extended, extension	ser.....series
indus...industry	serv....service
inform..information	spec....special
jour....journal	sta.....station
mem.....memoir	supp....supplement, supplemented
misc....miscellaneous	tech....technical
n.d.....no date	v.....volume

10

100

I N T R O D U C T I O N.

This list of dairy literature was compiled primarily for use in connection with the World's Dairy Congress, to be held in the United States, in October, 1923, and no claim is made for completeness.

PUBLICATIONS OF THE STATE AGRICULTURAL EXPERIMENT STATIONS. The list of Publications of the State Agricultural Experiment Stations was compiled with the assistance of records of the Library of the States Relations Service, United States Department of Agriculture, and includes only the most important series of the various stations which have been issued from 1900 to June, 1923, inclusive. In addition to the publications included in this compilation, the various agricultural colleges have issued many publications of a popular nature for use in educational and extension work.

PUBLICATIONS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE. In addition to the publications of the United States Department of Agriculture included in this compilation, numerous articles giving results of experimental and laboratory work of the department are published in non-departmental technical and scientific papers.

The more recent publications listed herein are probably now available for free distribution, but many of the older ones are either out of print or are obtainable only by purchase from the Superintendent of Documents, Government Printing Office, Washington, D. C. Most of these, however, may be consulted in libraries in the United States and abroad that are especially interested in agricultural subjects.

BOOKS. In the list of books none has been included that was issued previous to 1903 unless it has been revised since that date.

PERIODICALS. In addition to the periodicals included in this compilation, many farm papers of the country devote editorial and department space to discussion of dairy activities. Commercial organizations issue periodical publications, catalogues, and other valuable material relating to their products.

Part 1. PUBLICATIONS OF THE STATE AGRICULTURAL EXPERIMENT STATIONS
1900 TO JUNE, 1923, INCLUSIVE.

ALABAMA AGRICULTURAL EXPERIMENT STATION.
Auburn, Ala.

Bulletins.

- 114. Feeding experiments with dairy cows. J. F. Duggar and R. W. Clark.
1901. p.56-80.
- 121. Dairy herd record and creamery notes. R. W. Clark. 1902. p.183-203.
- 123. Vetch, cowpea, and soy bean hay as substitutes for wheat bran. J. F.
Duggar. 1903. p.51-72.
- 198. Velvet beans versus cottonseed meal and corn as feeds for dairy cattle.
G. S. Templeton and H. C. Ferguson. 1917. p.110-117.

Circular.

- 18. Feeding and managing dairy cattle; feed and care of the calf; the bull;
silos and silage. L. W. Summers and L. W. Shook. 1912. p.100-128.

ALABAMA (TUSKEGEE) AGRICULTURAL EXPERIMENT STATION.
Tuskegee Institute, Ala.

Bulletin.

- 22. Dairying in connection with farming. A. A. Turner. 1912. p.3-11.

ARIZONA AGRICULTURAL EXPERIMENT STATION.
Tucson, Ariz.

Bulletin.

39. Dairy herd records. G. H. True. 1901. p.293-309.

Circulars.

37. The production of clean milk. R. N. Davis. 1921. 12 p.

38. The adobe milkhouse. C. B. Brown. 1921. 4 p.

Timely Hints for Farmers.

10. Care of milk for the factory. G. H. True. 1900. p.89-92.

13. Selecting dairy cows. G. H. True. 1900. p.97-99.

21. The use of chemical preservatives in milk. G. H. True. 1900.
p.245-248.

23. The value of a dairy herd record. G. H. True. 1900. p.256-259.

24. The use of the Babcock test. G. H. True. 1900. p.253-262.

29. The use of hand separators on the farm. G. H. True. 1901. p.277-
280.

38. The dairy cow and the weather. G. H. True. 1902. p.223-226.

123. Making soft cheeses on the farm. W. S. Cunningham. 1917. 7 p.

127. Raising dairy calves. W. S. Cunningham. 1917. 8 p.

137. Butter-making on the Arizona farm. W. S. Cunningham. 1922. 8 p.

ARKANSAS AGRICULTURAL EXPERIMENT STATION.
Fayetteville, Ark.

Circular.

6. Farm buttermaking. G. H. Tourgee. 1911. 4 p.

CALIFORNIA AGRICULTURAL EXPERIMENT STATION.
Berkeley, Calif.

Bulletins.

204. The dairy cow's record and stable. Leroy Anderson [and C. W. Rubell]. 1909. p.65-90.
209. The cream supply. H. A. Hopper. 1911. p.115-137.
233. Three years' work of the Ferndale (Humboldt County) cow-testing association. Leroy Anderson. 1912. p.459-482.
256. The value of barley for cows fed alfalfa. G. H. True, F. W. Woll, and E. C. Voorhies. 1915. p.425-445.
271. Feeding dairy calves in California. F. W. Woll and E. C. Voorhies. 1916. p.17-44.
282. Trials with California silage crops for dairy cows. F. W. Woll and E. C. Voorhies. 1917. p.19-40.
285. The milch goat in California. E. C. Voorhies. Rev., 1921. 31 p. 1st ed. 1917.
301. California state dairy cow competition, 1916-18. F. W. Woll. 1918. p.155-204.
305. The influence of barley on the milk secretion of cows. F. W. Woll and E. C. Voorhies. 1919. p.325-334.
311. Investigations with milking machines. F. W. Woll. 1919. p.31-54.
314. Cow-testing associations in California. E. C. Voorhies. 1919. p.157-193.
323. Heavy vs. light grain feeding for dairy cows. F. W. Woll, E. C. Voorhies and C. V. Castle. 1920. p.3-21.
335. Cocoanut meal as a feed for dairy cows and other livestock. F. W. Woll. 1921. p.241-258.

Circulars.

44. Opportunities for instruction in dairy industry at the University farm, Davis, California, 1909-1910. 1909. 14 p.
48. Butter scoring contest, 1909. H. A. Hopper. [n. d.] 20 p.
54. Some creamery problems and tests. L. M. Davis. 1910. 14 p.

CALIFORNIA AGRICULTURAL EXPERIMENT STATION.

Circulars. (Cont.)

- 60. Butter scoring contest, 1910. L. M. Davis. 1911. 27 p.
- 88. Advantages to the breeder in testing his pure-bred cows for the register of merit. C. J. Hill. [n. d.] 2 p.
- 94. The dairyman's relation to quality. L. M. Davis. [n. d.] 2 p.
- 95. Detecting dairy losses. L. M. Davis. [n. d.] 2 p.
- 97. Increasing dairy profits. H. E. Van Norman. [n. d.] 1 p.
- 135. Official tests of dairy cows. F. W. Woll and Cora J. Hill. 1915. 10 p.
- 153. Announcement of the California state dairy cow competition, 1916-18. F. W. Woll. 1916. 8 p.
- 175. Progress report on the production and distribution of milk. Elwood Mead. 1917. 16 p.
- 179. Factors of importance in producing milk of low bacterial count. C. L. Roadhouse. 1917. 11 p.
- 196. Dairy calves for veal. G. H. True and C. V. Castle. 1918. 7 p.
- 206. Jack cheese. H. S. Baird. 1919. 11 p.
- 207. Neufchatel cheese. H. S. Baird. 1919. 4 p.
- 215. Feeding dairy cows in California. F. W. Woll. 1919. 6 p.
- 218. Advanced-registry testing of dairy cows. F. W. Woll and P. I. Dougherty. 1920. 15 p.
- 230. Testing milk, cream, and skim milk for butterfat. J. C. Marquardt. [1921]. 11 p.

COLORADO AGRICULTURAL EXPERIMENT STATION.
Fort Collins, Colo.

Bulletins.

- 73. The feeding value of beet pulp; feeding beet pulp and sugar beets to cows. B. C. Buffum and C. J. Griffith. 1902. 24 p.

COLORADO AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

- 88. Dairying on the plains. J. E. Payne. 1904. p.19-24.
- 156. Butter making: Clean milk and commercial starters as factors in butter making. W. G. Sackett. 1910. 14 p.
- 163. Farm butter making. H. M. Bainer. 1910. 16 p.
- 202. Testing and handling of milk and cream. R. McCann. 1914. 31 p.

CONNECTICUT (STATE) AGRICULTURAL EXPERIMENT STATION.
New Haven, Conn.

Bulletins.

- 213. Economy in feeding the family: V, Condensed milk, malted milk, milk powders. J. P. Street. 1919. p.399-407.
- 215. Economy in feeding the family: The food value of milk. Edna L. Ferry. 1919. 31 p.

CONNECTICUT (STORRS) AGRICULTURAL EXPERIMENT STATION.
Storrs, Conn.

Bulletins.

- 20. A study of dairy cows. C. L. Beach. 1900. 40 p.
- 21. The ripening of cream. H. W. Conn. 1900. 24 p.
- 23. The relation of bovine tuberculosis to that of man, and its significance in the dairy herd. H. W. Conn.--Results of experiments with tuberculous cows and the use of their milk in feeding calves. C. S. Phelps. 1902. 20 p.
- 25. The covered pail a factor in sanitary milk production. W. A. Stocking, jr. 1903. 24 p.
- 26. The relation of temperature to the keeping property of milk. H. W. Conn. 1903. 16 p.

CONNECTICUT (STORRS) AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

28. Dairy observations: I, Dehorning; II, Milking records; III, Skim milk fed calves. C. L. Beach. 1904. 20 p.
29. Records of a dairy herd for five years. C. L. Beach. 1904. 32 p.
31. The food value of a pound of milk solids in milk poor and rich in fat contents. C. L. Beach. 1904. 15 p.
32. Protecting cows from flies. C. L. Beach and A. B. Clark. 1904. 14 p.
34. Discussion of the amount of protein required in the ration for dairy cows. C. L. Beach. 1905. 22 p.
35. The Camembert type of soft cheese in the United States. H. W. Conn [and others]. 1905. 32 p. Also issued as U.S. Dept. Agr., Bur. Anim. Indus. Bul.71.
37. The so-called "germicidal property" of milk. W. A. Stocking, jr. 1905. 20 p.
40. Creamery problems. C. L. Beach. 1905. p.33-47.
42. Quality of milk affected common dairy practices. W. A. Stocking, jr. 1906. p.66-90.
43. The facility of digestion of foods a factor in feeding. C. L. Beach. 1906. 23 p.
46. Directions for making the Camembert type of cheese. T. Issajeff. 1907. p.57-75. Also issued as U. S. Dept. Agr., Bur. Anim. Indus. Bul.93.
47. Milking machines. I, Effect upon quality of milk. W. A. Stocking, jr. and C. J. Mason.-- II, Effect upon milk yield, C. L. Beach. 1907. p.105-138.
48. Comparative studies with covered milk pails. W. A. Stocking, jr. 1907. p.77-103.
51. Sources of bacteria in milk. W. M. Esten and C. J. Mason. 1908. p.65-109.
53. Improving dairy conditions. J. M. Trueman. 1908. p.139-164.
57. A study of some Connecticut dairy herds. J. M. Trueman. 1909. p.237-310.

CONNECTICUT (STORRS) AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

58. Camembert cheese problems in the United States. Charles Thom. 1909. p.311-374. Also published as U.S.Dept.Agr.,Bur.Anim.Indus. Bul. 115.
59. Bacterium lactis acidi and its sources. W. M. Esten. 1909. 27 p.
63. The cost of feeding heifers. J. M. Trueman. 1910. p.145-159.
65. Butter making on the farm. J. M. Trueman. 1911. p.193-210.
73. Records of a dairy herd for five years. J. M. Trueman. 1912. p.127-148.
78. Cheeses of the Neufchatel group. K. J. Matheson, Charles Thom and J. N. Currie. 1914. p.313-329.
79. Studies relating to the Roquefort and Camembert type of cheese. Charles Thom, J. N. Currie and K. J. Matheson. 1914. p.335-394.
83. Bacteriological studies: Bacterial studies of Camembert cheese; tests and comparisons of commercial lactic starters; tests of various brands of litmus for bacteriological work; the bacterial content of ice cream. W. M. Esten and C. J. Mason. 1915. p.103-135.
90. Selecting rations for dairy cows. G. C. White and K. B. Musser. 1917. 38 p.
94. Variations in the fat, solids-not-fat, and total solids in cow's milk. G. C. White and H. F. Judkins. 1918. p.251-307.
98. Report for three years of the education scoring of Connecticut dairy products. H. F. Judkins. 1918. p.417-446.
99. Studies in processing milk. H. F. Judkins and P. A. Downs. 1918. p.449-470.
102. Experiments in calf feeding: Corn silage; whole milk dilutions. G. C. White and J. A. Keulling. 1919. p.91-136.
104. The use of fermented milk and milk diets to control intestinal putrefaction. R. C. Fisher. 1919. p.153-175.

DELAWARE AGRICULTURAL EXPERIMENT STATION.
Newark, Del.

Bulletins.

- 71. The action of formaldehyde in the preservation of milk. F. D. Chester and T. R. Brown. 1905. 36 p.
- 113. The relation of size of dairy to economy of milk production. J. A. Hopkins, jr. 1913. 50 p.

FLORIDA AGRICULTURAL EXPERIMENT STATION.
Gainesville, Fla.

Bulletins.

- 99. Milk production. J. M. Scott. 1909. 10 p.
- 114. Milk production, II. J. M. Scott. 1913. p.63-76.
- 142. Dairying in Florida. J. M. Scott. 1918. p.59-76.
- 143. Feeding for milk production. J. M. Scott. 1913. p.78-83.

GEORGIA AGRICULTURAL EXPERIMENT STATION.
Athens, Ga.

Bulletins.

- 49. Practical dairying. R. J. Redding and H. J. Wing. 1900. p.177-229.
- 80. Co-operative dairy investigations by the Georgia Experiment Station and the Dairy Division, United States Department of Agriculture. P. N. Flint and J. E. Dorman. 1908. p.143-172.
- 86. Sorghum versus corn meal as a source of carbohydrates for dairy cattle. P. N. Flint. 1909. p.19-27.
- 122. The changes in composition of butter fat produced by feeding cottonseed oil. F. H. Smith, C. A. Wells and P. V. Ewing. 1916. p.95-111.

HAWAII AGRICULTURAL EXPERIMENT STATION,
Honolulu, Hawaii.

Bulletin.

3. Methods of milking. F. G. Krauss. 1905. 15 p.

Miscellaneous Publication. (Unnumbered.)

Production and inspection of milk. E. V. Wilcox. 1912. 343 p.

IDAHO AGRICULTURAL EXPERIMENT STATION.
Moscow, Idaho.

Bulletins.

48. Raising calves on separator milk. H. T. French. 1905. 17 p.

63. Babcock test for butter fat. J. H. Frandson. 1908. 6 p.

67. Better dairy methods. J. H. Frandson. 1909. 48 p.

73. A study of Idaho butter with suggestions for improvement. G. E. Frevert. 1912. 52 p.

90. Creamery records. O. W. Holmes. 1916. 20 p.

102. The management of dairy herds. E. V. Ellington. 1917. 40 p.

Circular.

9. Advanced registry testing. H. P. Davis. 1919. 11 p.

ILLINOIS AGRICULTURAL EXPERIMENT STATION.
Urbana, Ill.

Bulletins.

66. Individual differences in the value of dairy cows. W. J. Fraser. 1901. p.95-108. Circ.50 is an extract from Bul.66.

74. Standard milk and cream. W. J. Fraser. 1902. p.283-296.

75. Standardization of milk and cream. Oscar Erf. 1902. p.297-309.

ILLINOIS AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

84. Dairy conditions and suggestions for their improvement. W. J. Fraser. 1903. p.577-631.
85. Records of individual cows on dairy farms. A. J. Glover. 1903. 44 p.
91. Preventing contamination of milk. W. J. Fraser. 1903. p.221-249.
92. City milk supply. W. J. Fraser. 1903. p.250-272.
101. Crops for the silo, cost of filling, and effect of silage on the flavor of milk. W. J. Fraser. 2d ed., 1911. p.629-646. 1st ed., 1905.
120. Milk supply of Chicago and twenty-six other cities. J. M. Trueman. 1907. p.41-70.
137. A study of factors influencing the composition of butter. C. E. Lee, N. W. Hepburn, and J. M. Barnhart. 1909. p.314-366.
138. Pasteurization as a factor in making butter from cream skimmed on the farm. C. E. Lee. 1909. p.368-438.
139. Composition of market butter. C. E. Lee and J. M. Barnhart. 1909. p.441-457.
140. Dairy suggestions from European conditions as seen in the British Isles, Holland, and Denmark. W. J. Fraser and R. E. Brand. 1909. p.460-521.
143. Economy of the round dairy barn. W. J. Fraser. 1910. 44 p. Circ.230 supersedes Bul.143.
146. Alfalfa hay vs. timothy hay and alfalfa hay vs. bran for dairy cows. W. J. Fraser and C. C. Hayden. 3d ed., 1916. p.131-143. 1st ed., 1910.
153. Comparison of methods of sampling cream for testing. C. E. Lee and N. W. Hepburn. 1912. p.545-574. Abstract. 1912. 3 p.
159. Balanced versus unbalanced rations for dairy cows. W. J. Fraser and C. C. Hayden. 1912. p.237-246.
160. Official records of pure-bred dairy cows. C. C. Hayden. 1912. p.249-276.
164. Milk required to raise a dairy calf. W. J. Fraser and R. E. Brand. 1913. p.437-453.

ILLINOIS AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

199. Germ content of milk: I, As influenced by the factors at the barn. M. J. Prucha and H. M. Weeter. 1917. p.23-51.
204. Germ content of milk: II, As influenced by the utensils. M. J. Prucha, H. M. Weeter, and W. H. Chambers. 1918. p.217-257.
215. A study of the relative reliability of official tests of dairy cows. W. W. Yapp. 1919. p.323-339. Abstract. 1919. 4 p.
216. The cost of milk production computed on the year basis. F. A. Pearson. 1919. p.343-364.
224. The seasonal cost of milk production. F. A. Pearson. 1919. 18 p.
228. An epidemic of ropy milk. H. A. Harding and M. J. Prucha. 1920. p.111-124.
230. Elimination of germs from dairy utensils: I, By rinsing; II, by drying in sun and air. M. J. Prucha and H. A. Harding. 1920. p.139-168. Abstract. [n. d.] 4 p.
236. Germ content of milk. III. As influenced by visible dirt. H. A. Harding and M. J. Prucha. 1921. p.363-391.
237. Effect of temperature of pasteurization on the creaming ability of milk. H. A. Harding. 1921. p.395-403.
240. The production and utilization of manure on Illinois dairy farms. H. A. Ross. 1922. p.473-489.
241. Comparative expense of mechanical and hand milking. F. A. Pearson and H. A. Ross. 1923. p.493-506.
244. The feed cost of milk and fat production as related to yields. H. A. Ross, H. F. Hall, and C. S. Rhode. 1923. p.553-573.

Circulars.

50. Individual differences in the value of dairy cows. W. J. Fraser. 1902. 3 p. Circ.50 is an extract from Bul.66.
51. Standard milk and cream. W. J. Fraser. 1902. 12 p.
63. Dairy investigations. W. J. Fraser. 1903. 7 p.
73. Milk production at the University of Illinois. W. J. Fraser. [n. d.] 16 p.

ILLINOIS AGRICULTURAL EXPERIMENT STATION.

Circulars. (Cont.)

75. Feeding dairy cows. W. J. Fraser. 1904. 13 p.
76. Improvement of dairy herds. H. A. Hopper. 1904. 15 p.
77. Records of individual cows on dairy farms. A. J. Glover. 1904. 31 p.
78. Clean milk. W. J. Fraser. [n. d.] 14 p.
84. Records of dairy herds. A. J. Glover. 1904. 38 p.
90. Sampling milk for composite tests of individual cows. H. A. Hopper. 1905. 5 p.
93. Should dairy cows be confined in stalls? W. J. Fraser. 3d ed., 1910. 24 p. 1st ed., 1905.
95. Suggestions for the improvement of dairy barns. H. A. Hopper. 1905. 20 p.
102. Testing individual cows. H. A. Hopper. 1906. 40 p.
103. Story of Rose and Queen. W. J. Fraser. 1906. 4 p.
106. Remarkable difference in dairy cows. W. J. Fraser. 1907. 16 p.
111. National association of dairy instructors and investigators. 1907. 59 p.
113. Maple spring dairy. W. J. Fraser. 1907. 16 p.
114. The problem of the poor cow. W. J. Fraser. 1908. 8 p.
115. Why and how to test dairy cows. W. J. Fraser. 1908. 12 p.
118. Cows vs. cows. W. J. Fraser. 3d ed., 1913. 27 p. 1st ed., 1908.
131. Handling of cream and making of butter on the farm. C. E. Lee. 1909. 10 p.
134. Cow index of keep and profit. W. J. Fraser. 2d ed., 1913. 22 p. 1st ed., 1909.
143. Conservation of energy, and its relation to the dairyman. W. J. Fraser. 1910. 26 p.
144. The Illinois competitive cow test. C. C. Hayden. Rev. ed., 1910. 12 p. Original ed. destroyed as it contained an error.

ILLINOIS AGRICULTURAL EXPERIMENT STATION.

Circulars. (Cont.)

147. Clean milk: Essential requirements from production to consumption.
C. H. Yates and R. E. Brand. 1910. 36 p.
148. Care of cream on the farm. F. A. Jorgensen. 1911. 12 p.
151. Four systems of dairy farming and the profit of each. W. J. Fraser
and R. E. Brand. 1911. 24 p.
152. Feeding dairy cows. C. C. Hayden. 1911. 31 p.
162. Care of milk in the home. B. R. Rickards and H. N. Parker. 1912.
6 p.
166. A method for the improvement of buttermilk from pasteurized cream.
LeRoy Lang. 1913. 7 p.
174. Testing for fat in milk by the Babcock test. 1914. 11 p.
188. The construction of the dairy house. H. A. Ruehe. 1916. 3 p.
190. Caring for cream on the farm. H. A. Ruehe. 1917. 2 p.
191. Care of the cream separator. H. A. Ruehe. 1917. 2 p.
192. Why cream tests vary. H. A. Ruehe. 1917. 2 p.
195. Spring conditions affecting the cream producer. H. A. Ruehe. 1917.
4 p.
196. Cow testing associations. E. M. Clark. 1917. 10 p.
199. The arrangement of rectangular dairy barns. R. S. Hulce and W. B.
Nevens. 1917. 30 p.
202. Feed and care of the dairy calf. R. S. Hulce and W. B. Nevens.
1917. 12 p.
204. Care and management of the dairy herd. R. S. Hulce and W. B.
Nevens. 1917. 29 p.
205. What is meant by "quality" in milk. H. A. Harding, R. S. Breed,
W. A. Stocking, jr., and E. G. Hastings. 1917. 16 p. Issued
also as N.Y., State, Agr. Expt. Sta. Bul. 438.
219. Conserving sugar in ice cream manufacture. H. A. Ruehe. 1918.
2 p.

ILLINOIS AGRICULTURAL EXPERIMENT STATION.

Circulars. (Cont.)

- 230. The round barn. W. J. Fraser. 1913. 52 p. Rev. of Bul. 143.
- 234. Operation of the cream receiving station. N. W. Hepburn and H. A. Ruehe. 1919. 19 p.
- 235. Food values and dairy products. O. R. Overman. 1919. 23 p.
- 249. The measurement of the volume of cream on milk. H. A. Harding. 1921. 16 p.
- 250. The heavy feeding of milk cows is now profitable. H. A. Ross. 1921. 2 p.
- 256. Does carbon dioxide in carbonated milk and milk products destroy bacteria? M. J. Prucha, J. M. Brannon, and A. S. Ambrose. 1922. 8 p.

INDIANA AGRICULTURAL EXPERIMENT STATION.

La Fayette, Ind.

Bulletins.

- 39. The source of milk supply for towns and cities. C. S. Plumb. 1901. p. 39-69.
- 96. Suggestions concerning the care of milk and butter making on the farm. H. E. Van Norman. 1903. 36 p.
- 104. A simple alkali test for ripeness of cream. H. E. Van Norman. 1905. p. 267-274.
- 116. The hand separator and the gravity systems of creaming. O. F. Hunziker. 1906. p. 341-364.
- 127. Records from Indiana dairy herds. O. F. Hunziker, H. A. Hopper and H. J. Fidler. 1908. p. 163-216.
- 134. The estimation of fat in unsweetened evaporated milk by modified methods. O. F. Hunziker and G. W. Spitzer. 1909. p. 591-651.
- 143. Standards for evaporated milk, sweetened condensed milk and condensed skim-milk. Federal and state dairy laws. O. F. Hunziker. 1910. p. 473-507. Same. Popular ed. 1910. 15 p.

INDIANA AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

145. Testing cream for butter fat. O. F. Hunziker [and others]. 1910. p.531-595. Same. Popular ed. 1910. 22 p.
150. Why do cream tests vary? factors affecting richness of cream; relation of butter fat to butter. O. F. Hunziker. 1911. p.27-55.
159. Moisture control of butter: I, Factors not under the control of the buttermaker. O. F. Hunziker, H. C. Mills, and George Spitzer. 1912. p.285-360.
160. Moisture control of butter: II, Conditions under control of the butter maker; methods of moisture control; factors which influence the per cent of moisture found in butter after manufacture. O. F. Hunziker, H. C. Mills, and George Spitzer. 1912. p.365-419.
188. Cooling cream on the farm. O. F. Hunziker, H. C. Mills and H. B. Switzer. 1916. p.1087-1119.
189. Cream testing balances. O. F. Hunziker, George Spitzer and G. L. Ogle. 1916. 20 p.
193. Skim milk and milk substitutes for calf feeding. O. F. Hunziker and R. E. Caldwell. 1916. 104 p.
203. Test of three protein concentrates and two leguminous roughages in milk production. O. F. Hunziker and R. E. Caldwell. 1917. 20 p.
208. The pasteurization of sour, farm-skimmed cream for buttermaking. O. F. Hunziker, George Spitzer, H. C. Mills, and H. B. Switzer. 1917. 76 p.
244. A comparison of methods for estimating fat in butter. H. W. Gregory, P. S. Lucas and George Spitzer. 1920. 11 p.
246. The efficiency of milk substitutes in calf feeding. George Spitzer and R. H. Carr. 1920. 8 p.
254. A method for determining adulterants in butterfat. George Spitzer and W. E. Epple. 1921. 16 p.

Circulars.

11. Milk production: I, Herd improvement. H. A. Hopper. 1907. 8 p.
13. Milk production: II, Feeding. H. A. Hopper. 1908. 21 p.

INDIANA AGRICULTURAL EXPERIMENT STATION.

Circulars. (Cont.)

20. Agricultural extension, IV (Milk production, III): Economic and sanitary milk production. O. F. Hunziker and O. E. Reed. 1909. 24 p.
26. Agricultural extension, X, (Milk production, IV): Computing rations for dairy cows. O. F. Hunziker and O. E. Reed. 1911. 21 p.
29. Agricultural extension: XII, Live Stock judging for beginners: IV, Judging dairy cattle. P. H. Crane. Rev.ed., 1912. p.56-75. 1st ed., 1911.
42. Testing milk and cream for butter fat. O. F. Hunziker. 1914. 22 p. Circ.78 supersedes Circ.42.
51. How to produce cream that makes good butter. O. F. Hunziker and G. L. Ogle. 1915. 3 p.
73. Testing milk and cream for butter-fat. R. E. Caldwell, T. H. Broughton and S. L. Anderson. 1918. 15 p. Circ.78 supersedes Circ.42.
102. Advanced registry testing in Indiana. L. H. Fairchild. 1920. 16 p.

IOWA AGRICULTURAL EXPERIMENT STATION.

Ames, Iowa.

Bulletins.

52. I, Cream Testing. C. H. Eckles. - II, Influence of certain conditions in churning on the amount of water in butter; III, a study of butter increasers. J. B. Weems and F. W. Bouska. 1900. p.31-67.
57. Experiments in curing cheese. G. L. McKay. 1901. 14 p.
59. A bacteriological study of the college creamery milk supply; a case of putrid butter. C. H. Eckles. - Purification of milk by the centrifugal separator. C. H. Eckles and S. E. Barnes. 1901. p.37-59.
67. Solutions for testing cream and milk. J. B. Weems and C. E. Gray. 1902. p.266-272.

IOWA AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

71. The keeping quality of butter. G. L. McKay and Carl Larsen. 1903. 30 p.
76. The moisture content of butter and methods of controlling it. G. L. McKay and Carl Larsen. 1904. p.137-166.
80. Report of the Iowa educational butter contest; salt in butter. G. L. McKay and Carl Larsen. 1904. p.305-334.
97. Methods of determining the moisture content of butter. G. L. McKay and John Bower. 1903. 39 p.
101. A study of moisture in butter. G. L. McKay and John Bower. 1903. p.156-177.
103. The use of starters in butter-making. F. W. Bouska. 1909. p.217-229.
118. Lacto: A new and healthful frozen dairy product. Martin Mortensen and John Gordon. 1911. p.269-279.
121. Creamery bookkeeping. Martin Mortensen. 1911. p.305-322. Superseded by Circ.68.
123. Classification of ice cream and related frozen products. Score card for ice cream judging. Martin Mortensen. 1911. p.353-365.
134. Bacteria and ice cream. B. W. Hammer. 1912. p.279-302.
139. Creamery organization and construction, Part I, [Text.] Martin Mortensen and J. B. Davidson. 1913. p.100-146.
139. Creamery organization and construction, Part II, building plans. 1913.
140. Lacto, a frozen dairy product. Martin Mortensen and B. W. Hammer. 1913. p.149-155.
154. The pasteurization of milk in the final package. B. W. Hammer and A. J. Hauser. 1914. p.319-356.
156. Pasteurization of cream for buttermaking: Part I, Effect on quality and chemical composition, Martin Mortensen, W. G. Gaessler and W. H. Cooper. - Part II, Bacteriological studies. B. W. Hammer. 1914. 40 p.
164. Studies on the market milk of Iowa. Complete with appendix of tables. B. W. Hammer and A. J. Hauser. 1916. p.311-380.

IOWA AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

165. Influence of environment and breeding in increasing dairy production. H. H. Kildee and A. C. McCandlish. 1916. p.383-402.
174. Bacteria in ice cream--II. B. W. Hammer and E. F. Goss. 1917. 21 p.
180. Factors which influence the yield and consistency of ice cream. Martin Mortensen. 1918. p.259-283.
186. A bacteriological study of the method of pasteurizing and homogenizing the ice cream mix. B. W. Hammer and L. R. Sanders. 1919. p.19-26.
187. Soiling crops for milk production. J. S. Gillette, A. C. McCandlish, and H. H. Kildee. 1919. p.33-59.
188. Influence of environment and breeding in increasing dairy production, II. A. C. McCandlish, L. S. Gillette, and H. H. Kildee. 1919. p.65-83.
190. Bacteriological results obtained in practice with vat pasteurization and with one of the final package methods. B. W. Hammer. 1919. p.151-158.
195. The preparation of corn for dairy cows. A. C. McCandlish and G. E. Weaver. 1921. p.299-304.
197. The cost of producing milk. H. B. Munger. 1921. p.359-352.
201. A comparison of silage and soiling crops for summer milk production. A. C. McCandlish. 1921. 8 p.
207. Influence of acidity on flavor and keeping quality of butter. M. Mortensen. 1922. p.87-96.
212. A comparison of roughages for milk production. A. C. McCandlish and Earl Weaver. 1923. p.275-286.

Research Bulletins.

14. The specific heat of milk and milk derivatives. B. W. Hammer and A. R. Johnson. 1913. p.451-463.
15. A bacteriological study of blue milk. B. W. Hammer. 1914. p.467-481.
19. Bacteriological studies on the coagulation of evaporated milk. B. W. Hammer. 1915. p.119-132.

IOWA AGRICULTURAL EXPERIMENT STATION.

Research Bulletins. (Cont.)

20. Bacteriological studies on two yellow milk organisms. B. W. Hammer. 1915. p.135-150.
22. Slimy and ropy milk. R. E. Buchanan and B. W. Hammer. 1915. p.207-295.
27. Studies on the formation of gas in milk. B. W. Hammer. 1916. 16 p.
28. Studies on the clarification of milk. B. W. Hammer. 1916. p.19-32.
29. Studies on the numbers of bacteria in milk showing various changes. B. W. Hammer and R. H. Hix. 1916. p.35-62.
31. Studies on the creaming ability of milk. B. W. Hammer. 1916. p.67-91.
38. Fishiness in evaporated milk. B. W. Hammer. 1917. p.235-246.
41. A rapid volumetric method for approximate estimation of chlorine in milk. B. W. Hammer and D. E. Bailey. 1917. p.337-348.
47. Studies on the clarification of milk, II. B. W. Hammer and A. J. Hauser. 1918. p.79-97.
48. Milk as the sole diet of ruminants. A. C. McCandlish. 1918. 11 p.
51. Appetite as a guide in feeding dairy calves. A. C. McCandlish. 1919. p.179-184.
52. Studies on abnormal evaporated milk. B. W. Hammer. 1919. p.187-198.
54. Studies on formation of gas in sweetened condensed milk. B. W. Hammer. 1919. p.211-220.
55. The volatile acid production of starters and of organisms isolated from them. B. W. Hammer and D. E. Bailey. 1919. p.223-246.
60. Influence of condition on the maintenance requirements of dairy cattle. A. C. McCandlish and W. G. Gaessler. 1920. p.403-420.
61. A study of lactose-fermenting yeasts present in "yeasty" cream. B. W. Hammer and W. A. Cordes. 1920. 23 p.
63. Volatile acid production of S. lacticus and the organisms associated with it in starters. B. W. Hammer. 1920. p.59-96.
64. A study of brown glass milk bottles, with special reference to their use in preventing abnormal flavors due to light. B. W. Hammer and W. A. Cordes. 1920. p.99-111.

IOWA AGRICULTURAL EXPERIMENT STATION.

Research Bulletins. (Cont.)

65. The type of lactic acid produced by starters and by the organisms isolated from them. B. W. Hammer. 1920. p.115-123.
66. The relation between the volatile and total acidity in starters and in cultures of S. lacticus. W. A. Cordes and B. W. Hammer. 1921. p.130-136.
67. Sources of the flavor in butter. B. W. Hammer. 1921. p.139-144.
68. Burnt or caramel flavor of dairy products. B. W. Hammer and W. A. Cordes. 1921. p.147-156.
73. Influence of age at the time of freshening on production of dairy cows. A. C. McCandlish. 1922. p.243-255.
74. Studies on ropiness in cultures of Streptococcus lactis. B. W. Hammer. 1923. p.259-270.

Circulars.

6. Feeding corn silage to farm animals: Dairy cattle. H. H. Kildee. 1915. p.5-4.
16. Care, feed and management of the dairy herd. H. H. Kildee. 2d ed., 1915. 40 p. 1st ed., 1914.
30. Iowa educational market milk contest. B. W. Hammer and A. J. Hauser. 1916. 4 p.
32. Testing milk and cream. M. R. Tolstrup and Martin Mortensen. 1916. 8 p.
34. Feeding dairy cattle. A. C. McCandlish. 1917. 32 p.
38. Soft cheese making. R. W. Brown and Martin Mortensen. 1916. 4 p.
42. The milch goat. A. C. McCandlish and L. S. Gillette. 1918. 4 p.
50. Rearing dairy calves. L. S. Gillette, A. C. McCandlish and C. H. Stange. 1918. 16 p.
54. Fermented milk. B. W. Hammer and A. J. Hauser. 1918. 4 p.
64. Feeding dairy cattle. A. C. McCandlish. 1920. 32 p.
68. Creamery bookkeeping. Martin Mortensen. 1921. 19 p. Supersedes Bul.121.

KANSAS AGRICULTURAL EXPERIMENT STATION.
Manhattan, Kans.

Bulletins.

97. Skim milk calves. H. M. Cottrell, D. H. Otis, and J. G. Haney. 1900. p.117-132.
125. Experiments with dairy cows. D. H. Otis. 1904. p.59-161.
126. Experiments with hand-fed calves. D. H. Otis. 1904. p.163-198.
131. Care of dairy utensils. Oscar Erf and C. W. Melick. 1905. p.9-20.
135. Grading cream. Oscar Erf. 1906. p.133-144.
137. Variations in the test of separator creams. C. W. Melick. 1906. p.205-211.
138. Effect of bacteria in wash water of butter. C. W. Melick. 1906. p.213-222.
140. Milking machines. Oscar Erf. 1906. 67 p.
143. Disposal of dairy and farm sewage, and water-supply. Oscar Erf. 1907. p.125-139.
181. The permit system of cream buying. D. S. Burch and W. F. Droge. 1912. p.397-440. For rev. see Bul.184.
184. The permit system of cream buying. G. S. Hine and W. F. Droge. 1913. p.5-48. Rev. of Bul.181.
216. The marketing of Kansas butter. Theodore Macklin. 1917. 79 p.

Circulars.

21. Better butter for Kansas; a circular explaining the relation between the quality of butter and prices paid for butter fat. D. S. Burch. [n. d.] 4 p.
24. Better butter for Kansas; a circular explaining how dirt and bacteria get into cream and the effect they have on butter-fat prices. D. S. Burch. [n. d.] 4 p.
28. Sorghum crops for silage. Feeding experiments with dairy cattle. O. E. Reed and J. B. Fitch. [n. d.] 6 p.
35. Report of the Dickinson County cow-testing association. Results of the first year. O. E. Reed. 1914. 3 p.

KANSAS AGRICULTURAL EXPERIMENT STATION.

Circulars. (Cont.)

- 39. Cream grading for Kansas. G. S. Hine. 1914. 4 p. Superseded by Circ.56.
- 45. Dairy farming. O. E. Reed. 1915. 26 p. For rev. see Circ.90.
- 48. Raising calves on skim milk. O. E. Reed. 1915. 11 p.
- 56. Cream production and grading in Kansas. G. S. Hine. 1916. 4 p. Supersedes Circ.39.
- 80. Sudan grass as a supplementary pasture crop for dairy cattle. L. E. Call and J. B. Fitch. 1920. 4 p.
- 81. Suggestions regarding dairying in northwestern Kansas. J. B. Fitch and J. J. Bayles. 1920. 16 p.
- 82. Rules for testing dairy cows for advanced registration. J. B. Fitch and F. W. Atkeson. 1920. 12 p.
- 90. Dairy farming. J. B. Fitch. 1921. 32 p. Rev. of Circ.45.

KENTUCKY AGRICULTURAL EXPERIMENT STATION.

Lexington, Ky.

Bulletins.

- 106. Feeding dairy cows. D. W. May. 1903. p.47-79.
- 134. Milk supply of Kentucky: Louisville. R. M. Allen. 1908. p.74-323.
- 171. Pt.1, Feeding dairy cows in Kentucky. J. J. Hooper. - Feeding standard for milk production. T. L. Haecker. - Pt.2, Experiments in feeding dairy cows and calves. J. J. Hooper. 1913. p.165-190.
- 179. Construction and equipment of dairy barns. W. D. Nicholls. - The dairy barn at the Kentucky Agricultural Experiment Station. J. J. Hooper. 1914. p.36-117.
- 186. Experiments with the Sharples mechanical milker. J. J. Hooper and J. W. Nutter. 1914. p.474-510.
- 206. Factors and methods in the profitable production of sanitary milk: I, Practical means of controlling bacterial infection of milk; II, experimental study of conditions affecting the contamination of milk. W. D. Nicholls. 1917. 43 p.

KENTUCKY AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

211. Inspection and sanitation of dairies. J. O. LaBach and N. M. Cregor. 1917. p.211-228.
217. Profitable dairy-farm organization in Kentucky. W. D. Nicholls and J. B. Hutson. 1918. p.97-146.
234. Studies of dairy cattle. (Research bulletin.) J. J. Hooper and P. E. Bacon. 1921. p.95-161.

Circulars.

6. Inexpensive appliances and utensils for the dairy. W. D. Nicholls. 1915. p.15-31.
23. Feeding trials of velvet-bean feed, palm-kernel meal and various grain mixtures, for dairy cows. J. J. Hooper and J. W. Nutter. 1918. p.31-38.
24. The production of clean milk at the Kentucky Agricultural Experiment Station. J. J. Hooper and J. W. Nutter. 1920. 15 p.

LOUISIANA AGRICULTURAL EXPERIMENT STATION.

Baton Rouge, La.

Bulletins.

102. Report of dairy herds and their milk production at Hammond, La., and vicinity. T. E. Woodward and J. G. Lee, jr. 1908. 28 p.
104. Feeding "blackstrap" molasses to young calves. T. E. Woodward and J. G. Lee, jr. 1908. 40 p.
179. Feeding ground rough rice, etc. to horses, mules, hogs and dairy cattle. A preliminary report. W. H. Dalrymple. 1921. 8 p.
180. Feeding blackstrap molasses to young calves. R. C. Calloway. 1921. 22 p.

MAINE AGRICULTURAL EXPERIMENT STATION
Orono, Me.

Bulletins.

106. Feeding experiments with cows. C. D. Woods. 1904. p.122-126.
215. The measurement of the intensity of inbreeding. Raymond Pearl. 1913. p.123-138.
218. Tables for calculating coefficients of inbreeding. Raymond Pearl and J. R. Minor. 1913. p.191-202.
221. Constants for normal variation in the fat content of milk. Raymond Pearl. 1913. p.299-305.
243. Further data on the measurement of inbreeding. Raymond Pearl. 1915. p.225-248.
247. Report of the first Jersey sires' futurity test of the Arcostock Jersey Breeders' Association. Raymond Pearl. 1916. p.37-52.
258. Some commonly neglected factors underlying the stock breeding industry. Raymond Pearl. 1917. 28 p.
262. The change of milk flow with age, as determined from seven day records of Jersey cows. Raymond Pearl and S. W. Patterson. 1917. p.145-152.
272. Inheritance studies of certain color and horn characteristics in first generation crosses of dairy and beef breeds. J. W. Gowen. 1918. p.129-148. Abstract of U.S.Dept.Agr., Jour.Agr.Res., 15 (1918) no.1, p.1-58.
279. The variation of Ayrshire cows in the quantity and fat content of their milk. Raymond Pearl and J. R. Miner. 1919. p.57-64. Abstract of U.S.Dept.Agr., Jour.Agr.Res., 17(1919)no.6, p.285-322.
281. Studies in milk secretion: VII, Transmitting qualities of Jersey sires for milk yield, butter-fat percentage and butter-fat. Raymond Pearl, J. W. Gowen and J. R. Rice. 1919. p.165-204.
286. The variation of milk secretion with age in Jersey cattle. J. W. Gowen. 1920. p.49-60.
289. The correlation between milk yield of one lactation and that of succeeding lactations. J. W. Gowen. 1920. p.121-132.
290. The variation of butter-fat percentage with age in Jersey cattle. J. W. Gowen. 1920. p.133-144.

MAINE AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

291. The correlation between the butter-fat percentage of one lactation and the butter-fat percentage of succeeding lactations in Jersey cattle. J. W. Gowen. 1920. p.145-156.
293. Studies in milk secretion: VIII, On the influence of age on the milk yield and butter-fat percentage, as determined from the 365 day records of Holstein-Friesian cattle. J. W. Gowen. 1920. p.185-196.
300. Studies in milk secretion: IX, On the performance of the progeny of Holstein-Friesian sires. J. W. Gowen and Mildred R. Covell. 1921. p.121-252.
301. Studies in milk secretion: XII, Transmitting qualities of Holstein-Friesian sires for milk yield, butter-fat percentage and butter-fat. J. W. Gowen and Mildred R. Covell. 1921. p.253-308.
306. Studies in milk secretion: XVII, Relation between milk yields and butter-fat percentages of the 7-day and 365-day tests of Holstein-Friesian advanced registry cattle. Marie S. Gowen and J. W. Gowen. 1922. p.21-60.

Miscellaneous Publication.

500. Record blank for dairy cattle. 1914. 2 p.

MARYLAND AGRICULTURAL EXPERIMENT STATION.
College Park, Md.

Bulletins.

64. A study of the cause of mottled butter. C. F. Doane. 1900. p.43-54.
69. The influence of feed and care on the individuality of cows. C. F. Doane. 1900. p.31-60.
77. The comparative digestibility of raw, pasteurized, and cooked milk. C. F. Doane and T. M. Price. 1901. 38 p.
78. The dehorning of stock. C. F. Doane. 1901. p.39-49.
84. Some feeding experiments with cows and tables for the computation of rations for farm animals. H. J. Patterson. 1902. p.121-193.

MARYLAND AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

- 36. The influence of preservatives upon the food value of milk. C. F. Doane and T. M. Price. 1902. p.15-64.
- 38. Economical methods for improving the keeping qualities of milk. C. F. Doane. 1903. p.117-164.
- 94. Systems for keeping milk and butter records. C. F. Doane. 1904. 22 p.
- 95. The character of milk during the period of heat. C. F. Doane. 1904. p.25-30.
- 97. The relative profits of selling milk, cream, and butter. C. F. Doane. 1904. p.45-56.
- 102. Leucocytes in milk and their significance. C. F. Doane. 1905. p.205-223.
- 104. Tests of materials for bedding cows. C. F. Doane. 1905. 9 p.
- 135. Butter-making in Maryland. C. W. Melick. 1909. p.225-234.
- 136. Whipped cream. C. W. Melick. 1909. p.235-300.
- 169. Cow-testing associations. G. H. Hibbard and G. E. Wolcott. 1912. p.29-72.
- 177. Open stables versus closed stables for dairy animals. S. S. Buckley. - The bacterial content of milk produced in the open stable and in the closed stable. R. W. Lanson. 1913. p.219-262.
- 181. Inexpensive aids in producing sanitary milk. R. W. Lanson. 1914. p.155-154.
- 184. The physical character of the curd of milk from different breeds; curd as an index of the food value of milk; studies of the proteid content of milk. S. S. Buckley. 1914. p.247-242.
- 187. Profitable and unprofitable cows: Cow testing associations in Maryland. G. S. Wolcott. 1914. p.115-134.
- 217. The relation of milk yield to age at first calf. R. C. Towles. 1913. p.227-238.

MASSACHUSETTS AGRICULTURAL EXPERIMENT STATION.
Amherst, Mass.

Bulletins.

110. Market milk. J. B. Lindsey and P. H. Smith. 1906. 48 p.
118. Molasses and molasses feeds for farm stock. J. B. Lindsey, E. B. Holland and P. H. Smith. 1907. 31 p.
145. Record of the station dairy herd and the cost of milk production. J. B. Lindsey. 1913. 31 p.
152. The digestibility of cattle foods. J. B. Lindsey and P. H. Smith. 1914. p.79-120.
153. The composition, digestibility and feeding value of molassine meal, cottonseed meal and hulls, cocoa shells, grain screenings, flax shives, Mellen's food refuse, and Postum cereal residue (CXX feed). J. B. Lindsey and P. H. Smith. 1914. p.53-71.
164. Substitutes for milk in the rearing of dairy calves; the cost of rearing a dairy cow. J. B. Lindsey. 1915. p.49-71.
173. The cost of distributing milk in six cities and towns in Massachusetts. A. E. Cance and R. H. Ferguson. 1917. 54 p.
186. The composition, digestibility and feeding value of alfalfa; the value of corn bran for milk production. J. B. Lindsey and C. L. Beals. 1918. p.105-153.
187. Clarification of milk, Part I. C. E. Marshall [and others]. 1918. p.155-242. Pt.2 pub.in Jour.Dairy Science, 3(1920) no.4, p.245-259.
197. The nutritive value of cattle feeds: 1, Velvet bean feed for farm stock. J. B. Lindsey and C. L. Beals. 1920. p.61-74.
200. The nutritive value of cattle feeds: 2, Oat by-products for farm stock. J. B. Lindsey and C. L. Beals. 1920. p.117-135. Same, Popular ed. 1920. 10 p.
205. The nutritive value of cattle feeds: 3, Dried apple pomace for farm stock. J. B. Lindsey, C. L. Beals and J. G. Archibald. 1921. p.135-143.

Circulars.

9. Rules relative to testing dairy cows. 1907. 6 p. Supp. by Circ.15, for rev. see Circs.23,57.
12. The unprofitable cow and how to detect her. 1908. 4 p.

MASSACHUSETTS AGRICULTURAL EXPERIMENT STATION.

Circulars. (Cont.)

15. The cost of testing pure bred cows. J. B. Lindsey. 1908. 4 p.
Supp. to Circ.9, for rev. see Circs.28,57.
24. Contents: I, An act to provide for the protection of dairymen.
II, The Babcock test. P. H. Smith. 1909. 3 p. Superseded
by Circ. 33.
28. Rules relative to testing dairy cows. P. H. Smith. 1910. 6 p.
Rev. of Circs.9,15, for rev. see Circ.57.
30. Balanced rations for dairy stock. J. B. Lindsey. 1911. 7 p.
33. I. An act to regulate the use of utensils for testing the compo-
sition or value of milk and cream. II. Salient points in the
act. III. Suggestions for making the Babcock test. P. H.
Smith. 1912. 11 p. Supersedes Circ. 24.
47. The feeding value of apple pomace. J. B. Lindsey. 1914. 4 p.
For rev. see Circ.58.
50. Rations for dairy stock. J. B. Lindsey. 1915. 8 p. For rev.
see Circ.63.
57. Rules relative to testing dairy cows. 1915. 4 p. Rev. of Circ.
23.
58. The feeding value of apple pomace. J. B. Lindsey. 1915. 4 p.
Rev. of Circ. 47.
63. Balanced rations for dairy stock. J. B. Lindsey. 1916. 8 p.
Rev. of Circ.50.

MICHIGAN AGRICULTURAL EXPERIMENT STATION.
East Lansing, Mich.

Bulletins.

- 182-183. Contents. 182, A popular discussion of pure milk supply. C. E.
Marshall. 1900. p.173-191.-- 183, Gassy curd and cheese. C. E.
Marshall. 1900. p.193-205.
193. Some experiments with beet pulp as a stock food. C. D. Smith [and
others]. 1901. 27 p.

MICHIGAN AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

201. Aeration of milk, a popular consideration of Special Bulletin 16.
C. E. Marshall. 1902. p.214-216.
221. The care and handling of milk: I, Milk, its purity and its impurity.
C. E. Marshall and W. R. Wright. --II, Practical conditions for the
production of milk. John Michels. 1904. p.53-74.
228. The discussion of the milk problem from the standpoint of production.
C. E. Marshall. 1905. p.187-195.
229. A popular review of Special Bulletin No. 33 on "The associative action
of bacteria in the souring of milk." C. E. Marshall. 1905. p.197-
201.
234. Feeding dairy cows, review and partial reprint of Bulletin 149. C. D.
Smith. 1906. p.85-109.
238. First annual report of grade dairy herd. R. S. Shaw and A. C. Ander-
son. 1906. p.165-176.
240. Roots supplementary to silage for dairy cows. R. S. Shaw and H. W.
Norton, jr. 1906. p.19-31.
241. A plan for the improvement of Michigan cattle. R. S. Shaw. 1906.
p.35-53.
246. The practical use of starters. L. D. Bushnell and W. R. Wright.
1907. p.139-151.
257. Rearing calves on skim-milk and supplementary feed. H. W. Norton, jr.
1909. 29 p.
264. Second report of grade dairy herd. A. C. Anderson. 1911. p.77-89.
277. Studies in the cost of market milk production. A. C. Anderson and
F. T. Riddell. 1916. 38 p.
286. Studies in the cost of milk production, 2. F. T. Riddell and A. C.
Anderson. 1920. 37 p.

Special Bulletins.

16. Aeration of milk. C. E. Marshall. 1902. 58 p.
21. Cheese problems. John Michels. 1903. 10 p.
23. A preliminary note on the associative action of bacteria in the sour-
ing of milk and in other milk fermentations. C. E. Marshall. 1904.
8 p.

MICHIGAN AGRICULTURAL EXPERIMENT STATION.

Special Bulletins. (Cont.)

29. Additional work upon the associative action of bacteria in the souring of milk and in other milk fermentations. C. E. Marshall. 1904. 7 p.
33. Extended studies of the associative action of bacteria in the souring of milk. C. E. Marshall. 1905. 23 p. Bul. 229 is a review of Spec. Bul. 33.
42. Bacterial associations in the souring of milk. C. E. Marshall and B. Ferrand. 1908. 63 p.
71. Studies in the range of variation of the per cent of butter fat in the milk of individual cows. A. C. Anderson. 1914. 13 p.
99. The Detroit commission plan of city milk administration. W. O. Hedrick and A. C. Anderson. 1919. 30 p.
111. Studies in city milk distribution. S. J. Brownell. 1921. 24 p.
112. An experiment in improving the milk supply of a city milk plant. L. H. Cooledge and O. T. Goodwin. 1921. 16 p. Spec. Bul. 112 presents practical application of methods described in Tech. Bul. 52.

Technical Bulletins.

1. Keeping qualities of butter: I, General studies. W. S. Sayer, Otto Rahn, and Bell Farrand. 1903. 61 p.
2. Keeping qualities of butter: II, The influence of salt; III, The decomposition of proteins. Otto Rahn, C. W. Brown, and L. M. Smith. 1909. 44 p.
9. The influence of the products of lactic organisms upon Bacillus typhosus. Zae Northrup. 1911. 33 p.
15. The influence of certain acid-destroying yeasts upon lactic bacteria. Zae Northrup. 1912. 35 p.
29. Keeping qualities of butter: IV, Cream ripening and its influence (contribution): Bacteria in cream, their numbers and types and their itinerary in the manufacture of butter. C. W. Brown and Kurt Peiser. 1916. 20 p.
30. Keeping qualities of butter: V, Pasteurization and its influence (contribution): A study of the factors which influence the resistance of lactic acid bacteria to heat. C. W. Brown and Kurt Peiser. 1916. 18 p.

MICHIGAN AGRICULTURAL EXPERIMENT STATION.

Technical Bulletins. (Cont.)

33. A study of the presence of Bacterium abortus (Bang) in milk. L. H. Cooledge. 1916. 37 p.
41. Studies upon the bacterial flora of samples of milk with high cellular counts as drawn from apparently normal udders. L. H. Cooledge. 1913. p.902-910.
52. The colorimetric hydrogen ion determination as a means of studying biological changes in dairy products. L. H. Cooledge. 1921. 20 p. Spec. Bul. 112 presents practical application of methods described in Tech. Bul. 52.

Circulars.

2. The Babcock test. W. B. Liverance. 1908. p.7-16.
4. Methods of breeding for the improvement of Michigan cattle; organization of cooperative cattle breeders' associations in Michigan. R. S. Shaw and W. F. Raven. 1909. p.33-44.
7. Lactic cultures for dairy purposes. Prepared by the bacteriological laboratory. 1910. p.53-55.

MINNESOTA AGRICULTURAL EXPERIMENT STATION.

University Farm, St. Paul, Minn.

Bulletins.

67. Investigation in milk production; feeding dairy cows. T. L. Haecker. 1900. p.333-556.
71. Investigation in milk production: [Protein requirements.] T. L. Haecker and E. W. Major. 1901. p.267-300.
79. Investigations in milk production: 1, The food of maintenance; 2, nutrient requirements; 3, protein requirements; 4, influence of stage of lactation on nutrient requirements. T. L. Haecker. 1903. p.89-143.
92. The digestibility and nutritive value of cottage cheese, rice, peas, and bacon. Harry Snyder. 1905. p.259-275.
106. Investigation in milk production: The relation of nutriment to product. T. L. Haecker. 1907. p.147-169.

MINNESOTA AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

124. The cost of Minnesota dairy products. T. P. Cooper. 1911.
p. 89-133.
130. Feeding dairy cows. T. L. Haecker. Rev. and enl., 1914. 65 p.
1st ed., 1913.
140. Investigations in milk-production. T. L. Haecker. 1914. 79 p.
166. Cooperative creameries and cheese factories in Minnesota, 1914.
E. D. Durand and Frank Robotka. 1917. 53 p.
173. The cost of milk production: I, Factors of cost; II, application
of the factors in determining the cost of milk at Northfield,
Halsted, and Cokato. F. W. Peck and Andrew Boss. 1918. 136 p.
177. Butterfat losses in creameries. R. M. Washburn, A. C. Dahlberg,
James Sorenson and M. P. Mortensen. 1918. 12 p.

MISSISSIPPI AGRICULTURAL EXPERIMENT STATION.
Agricultural College, Miss.

Bulletins.

70. Records of station cows; feeding dairy cows. J. S. Moore. 1901.
19 p.
95. The dairy cow. J. S. Moore. 1906. 23 p.
111. Experiments in feeding dairy cows. J. S. Moore. 1908. 6 p.
112. Silage vs. hulls and meal. A. K. Risser and R. R. Welch. 1908.
8 p.
166. Dairying on cut-over pine lands. E. B. Ferris. 1913. 24 p.
174. I, Feeding cottonseed meal and hulls to dairy cows; II, feeding
value of cottonseed meal vs. cold pressed cottonseed cake; III,
feeding value of purchased feeds vs. pasture vs. soiling crops.
J. S. Moore. 1914. 16 p.
200. Dairy calves; consumption of food and gain by different breeds;
general notes, feed and care. Earle Brintnall. 1921. 16 p.

Circular:

38. Blackstrap molasses for dairy cattle. Earle Brintnall. 1921. 4 p.

MISSOURI AGRICULTURAL EXPERIMENT STATION.
Columbia, Mo.

Bulletins.

56. Dairy husbandry. H. J. Waters and C. H. Eckles. 1902. 31 p.
57. Raising calves with skim milk. C. H. Eckles. 1902. p.33-52.
58. Feeding the dairy cow. C. H. Eckles. 1902. p.53-72.
94. Factors affecting the per cent of fat in cream from farm separators. C. H. Eckles and H. S. Wayman. Feb., 1911. p.517-558. Circ. 37 is a popular discussion of Bul.94.
100. Influence of fatness of cow on per cent of fat in milk. C. H. Eckles. 1912. p.183-202.
135. The ration and age of calving as factors influencing the growth and dairy qualities of cows. C. H. Eckles. 1915. 91 p.
156. Milk production costs and milk prices. R. M. Green, D. C. Wood and A. C. Ragsdale. 1913. 36 p.
158. Winter rations for dairy heifers. C. H. Eckles. 1913. 54 p.
159. Profits from milk cows on general cornbelt farms. O. R. Johnson and R. M. Green. 1913. 20 p.

Research Bulletins.

2. A study of cause of wide variations in milk production by dairy cows. C. H. Eckles and O. E. Reed. 1910. p.107-147.
4. Digestion trial with two Jersey cows on full ration and on maintenance. C. H. Eckles. 1911. 22 p.
5. Maintenance trials with five Jersey cows. C. H. Eckles. 1911. p.25-48.
7. Nutrients required for milk production. C. H. Eckles. 1913. p.91-140.
9. Carotin, the principal natural yellow pigment of milk fat: I, Review of the literature concerning the yellow plant and animal pigments. L. S. Palmer and C. H. Eckles. 1914. p.311-336.
10. Carotin, the principal natural yellow pigment of milk fat: II, Chemical and physiological relations of pigments of milk fat to the carotin and xanthophylls of green plants. L. S. Palmer and C. H. Eckles. 1914. p.337-387.

MISSOURI AGRICULTURAL EXPERIMENT STATION.

Research Bulletins. (Cont.)

11. Carotin, the principal natural yellow pigment of milk fat: III, The pigments of the body fat, corpus luteum and skin secretions of the cow. L. S. Palmer and C. H. Eckles. 1914. p.389-411.
12. Carotin, the principal natural yellow pigment of milk fat: IV, (A) The yellow pigment of blood serum; (B) carotin and xanthophylls during digestion; (C) the pigments of human milk fat. L. S. Palmer and C. H. Eckles. 1914. p.413-450.
13. Lactochrome, the yellow pigment of milk whey: Its probable identity with urochrome, the specific yellow pigment of normal urine. L. S. Palmer and L. H. Cooledge. 1914. p.451-487.
24. Influence of plane of nutrition of the cow upon the composition and properties of milk and butter fat: Influence of overfeeding. C. H. Eckles and L. S. Palmer. 1916. 35 p.
25. Influence of plane of nutrition of the cow upon the composition and properties of milk and butter fat: Influence of underfeeding. C. H. Eckles and L. S. Palmer. 1916. 107 p.
27. Effects of feeding cottonseed products on the composition and properties of butter: Influence of the character of the ration and quantity of cottonseed products. C. H. Eckles and L. S. Palmer. 1916. 44 p.
31. Some factors influencing the rate of growth and the size of dairy heifers at maturity. C. H. Eckles and W. W. Swett. 1918. 56 p.
34. The preservation of milk for chemical analysis. L. S. Palmer and E. H. Cooledge. 1919. p.31.
35. A study of the birth weight of calves. C. H. Eckles. 1919. 11 p.
36. The normal growth of dairy cattle. C. H. Eckles. 1920. 20 p.
38. Composition of the bovine at birth. L. D. Haigh, C. R. Moulton and P. F. Trowbridge. 1920. 47 p.

Circulars.

15. The farmers' creamery in Missouri: When and how to build. R. M. Washburn. 1905. 21 p.
26. Feeding the dairy cow. C. H. Eckles. [1908]. 17 p.
37. Variations in cream tests. C. H. Eckles. 1910. p.13-16. Circ.37 is a popular discussion of Bul.94.

MISSOURI AGRICULTURAL EXPERIMENT STATION.

Circulars. (Cont.)

- 41. Directions for testing milk on the farm by the Babcock method. H. E. McNatt. 1910. p.57-60.
- 44. Feeding for milk production. C. H. Eckles. 1910. p.69-83.
- 47. Raising calves on skim milk. C. H. Eckles and G. C. White. 1911. p.99-106.
- 57. Keeping records of dairy cows. C. H. Eckles. 1912. p.177-184.
- 64. Directions for testing cream. L. G. Rinkle. 1913. p.223-230.
- 74. The yellow color in cream and butter. L. S. Palmer. 1915. p.41-46.
- 83. Raising calves on farms where whole milk is sold. W. W. Swett. 1919. 13 p.
- 96. Official testing of dairy cattle. A. C. Ragsdale and C. W. Turner. 1920. 12 p.

MONTANA AGRICULTURAL EXPERIMENT STATION.

Bozeman, Mont.

Bulletins.

- 53. Creameries and cheese factories: Organization, building and equipment. W. J. Elliott. 1904. p.59-88.
- 94. Clover and corn silage as feeds for dairy cows. R. W. Clark. 1913. p.35-54.
- 118. Sunflower silage for dairy cows, a preliminary report. C. N. Arnett and Oscar Tretsven. 1917. p.75-80.
- 131. Growing and feeding sunflowers in Montana: Growing sunflowers. Alfred Atkinson and J. B. Nelson.--Feeding sunflowers. C. E. Arnett, W. E. Joseph and Oscar Tretsven. 1919. 29 p.
- 145. The college dairy herd; development, care and management. J. O. Tretsven. 1921. 24 p.

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Circulars.

1. Home cheesemaking. W. J. Elliott. 1908. 8 p.
10. Dairying in Montana. R. W. Clark. 1911. p.17-36.
23. Creamery organization and management. R. C. Jones. 1913. p.67-74.
32. Farm butter-making; creamery industry in Montana. R. C. Jones. 1913. p.113-152.
93. The bull and the treadmill. Oscar Trettsven and H. E. Murdock. 1920. 7 p.
104. Raising dairy cattle. J. O. Trettsven. 1922. 20 p.
106. Feeding and managing dairy cows in Montana. J. O. Trettsven. 1922. 16 p.

NEBRASKA AGRICULTURAL EXPERIMENT STATION.
Lincoln, Nebr.

Bulletins.

68. Feeding skim-milk to calves. A. L. Haecker. 1901. p.22-29.
76. ~~Experiments with dairy herd:~~ I. The herd record; II. ration tests for dairy cows; III. the best week in a cow's lactation period. A. L. Haecker. 1903. 21 p.
87. A test of calf rations. A. L. Haecker. --Methods of controlling contamination of milk during milking. A. L. Haecker and C. W. Melick. 1905. 13 p.
101. Dairy herd record for ten years; cost of butter fat production. A. L. Haecker. 1907. 38 p.
108. Milking machines. A. L. Haecker and E. M. Little. 1908. 73 p.
129. Results of the Douglas County cow testing association. A. L. Haecker and J. H. Frandsen. 1912. 15 p.
133. Care of milk and cream on the farm. J. H. Frandsen. 1912. 12 p.
139. Dairy herd records for fourteen years. J. H. Frandsen and A. L. Haecker. 1914. 30 p.

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Bulletins. (Cont.)

149. Raising the dairy calf. E. G. Woodward. 1915. 16 p.
164. Chopped alfalfa vs. bran in grain ration for dairy cows. 1913.
11 p.
168. Sugar-saving substitutes in ice cream. J. H. Frandsen, J. W. Rovner
and John Luithly. 1918. 8 p.

Circulars.

3. Cooling tanks and milk houses as factors in cream improvement. J. H.
Frandsen. 1917. 19 p.
6. Dairy barn and milk house arrangement. J. H. Frandsen and W. B.
Nevens. 1919. 23 p.
8. Purebred sires effect herd improvement. M. N. Lawritson, J. W.
Hendrickson, and W. B. Nevens. 1919. 15 p.

NEVADA AGRICULTURAL EXPERIMENT STATION.

Reno, Nev.

Circular.

19. Care of milk in the home. S. C. Dinsmore. [n. d.] 2 p.

Better Farming.

- v.I,no.5. Feeding dairy cattle. V. E. Scott.-- The judging of dairy
cattle. G. H. True.-- Improving the raw product. V. E.
Scott. 1913.
- v.II,no.1. Announcement of dairy short course and farmers' week.-- Breeds
of dairy cattle. V. E. Scott. 1914. 14 p.

This series which was begun by the Experiment Station was assumed by the Extension Division of the College of Agriculture of the University of Nevada, beginning with v.2,no.6. Only the issues bearing the name of the station are listed here.

NEW HAMPSHIRE AGRICULTURAL EXPERIMENT STATION.
Durham, N. H.

Bulletins.

103. Standard milk. F. W. Morse. 1903. p.79-82.
114. The Babcock test for New Hampshire farmers. I. C. Weld. 1904. p.147-153.
120. The dairy industry in New Hampshire. I. C. Weld. 1905. p.71-80.
126. The care of composite milk samples. I. C. Weld. 1905. p.131-134.
127. The feeding of farm stock. F. W. Taylor. 1906. p.137-203. Supersedes Buls.4, 17.
132. A plan for improving the quality of milk and cream furnished to New Hampshire creameries. I. C. Weld. 1907. p.59-67.
141. A study of farm buttermaking in New Hampshire. Fred Rasmussen. 1909. p.247-280.

Circular.

7. Some essentials in farm butter-making. Fred Rasmussen. 1908. 2 p.

NEW JERSEY AGRICULTURAL EXPERIMENT STATION.
New Brunswick, N. J.

Bulletins.

143. Alfalfa: Methods of culture and yields per acre: Alfalfa protein versus purchased protein in rations for dairy cows. E. B. Voorhees and C. B. Lane. 1901. 22 p.
152. Domestic pasteurizing methods and the care of milk in the home. Julius Nelson. 1901. 22 p.
161. Alfalfa, cowpeas, and crimson clover as substitutes for purchased feeds; home-grown protein versus purchased protein. C. B. Lane. 1902. 23 p.
174. Alfalfa hay, cowpea hay, and soy bean silage as substitutes for purchased feeds; cottonseed meal versus wheat bran and dried brewers' grains. C. B. Lane. 1904. 24 p.

NEW JERSEY AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

- 189. Dried beet pulp as a substitute for corn silage; dried beet pulp versus dried molasses beet pulp; dried molasses beet pulp versus hominy meal. G. A. Billings. 1905. 24 p.
- 190. Alfalfa hay versus purchased feeds. G. A. Billings. 1905. p.19-31.
- 204. Home-grown protein vs. purchased protein; distiller's grain vs. gluten feed; summer silage vs. soiling. G. A. Billings. 1907. 28 p.
- 312. Farm profits and factors influencing farm profits on 284 general and 75 dairy farms in Monmouth County, New Jersey. Frank App. 1917. 89 p.
- 320. Farm profits and factors influencing farm profits on 460 dairy farms in Sussex County, N. J. Frank App. 1917. 111 p.

Circulars.

- 7. Dairy feeding and the home mixing of feeds. A. S. Cook. 1912. 14 p.
- 16. Cow testing associations. A. S. Cook. 1912. 16 p.
- 38. Advanced registry tests in New Jersey. A. S. Cook. [n. d.] 7 p.
- 62. Digest and copy of law regulating the weighing, testing and purchasing of milk and cream (Chapter 31, Laws of 1916). W. J. Carson. 1916. 16 p.
- 73. Dairy feeding and the calculation of rations. L. S. Riford. 1917. 15 p.
- 121. Buying and selling milk on a butterfat basis, containing a brief of the New Jersey law and the report of previous inspection. F. C. Button. 1920. 24 p.
- 127. Feeding dairy cattle. M. H. Keeney. 1921. 38 p.

NEW MEXICO AGRICULTURAL EXPERIMENT STATION.
State College, N. Mex.

Bulletins.

98. Economic feeding for milk production in New Mexico. Luther Foster and R. W. Latta. 1915. 34 p.
122. Dairy cow feeding experiments: Corn silage vs. alfalfa hay, dried beet pulp vs. corn silage. Luther Foster and J. R. Meeks. 1920. 40 p.
126. The culture and feeding of Russian sunflowers. G. R. Quesenberry, O. C. Cunningham and Luther Foster. 1921. 20 p.

NEW YORK (CORNELL) AGRICULTURAL EXPERIMENT STATION.
Ithaca, N. Y.

Bulletins.

178. The invasion of the udder by bacteria. A. R. Ward. 1900. p.259-280.
183. Sugar beet pulp as a food for cows. H. H. Wing and LeRoy Anderson. 1900. 16 p.
195. Further observations upon ropiness in milk and cream. A. R. Ward. 1901. p.25-39.
197. Investigations concerning the germicidal action in cow's milk. O. F. Hunziker. 1901. p.65-86.
203. The care and handling of milk. O. F. Hunziker. 1902. 18 p.
213. Methods of milking. H. H. Wing and J. A. Foord. 1903. p.53-66.
222. Record of an attempt to increase the fat in milk by means of liberal feeding. H. H. Wing and J. A. Foord. 1904. p.19-39.
257. Defects in American cheddar cheese. C. A. Publow. 1908. p.3-16.
268. The substitution of roots for concentrated foods in rations for milk production. E. S. Savage. 1909. p.443-487.
269. Substitutes for skimmed milk in raising calves. E. S. Savage and G. W. Tailby, jr. 1909. p.491-517. Rev. and extended by Bul.304.
270. Fancy cheeses for the farm and factory. C. A. Publow. 1909. p.3-12.

NEW YORK (CORNELL) AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

281. Butter moisture-tests. H. E. Ross. 1910. p.401-413.
303. The cell content of milk. H. E. Ross. 1911. p.775-793.
304. Substitutes for skimmed milk in raising calves, with supplement showing later development. E. S. Savage and G. W. Tailby, jr. 1911. p.3-32. Rev. and extension of Bul.269.
321. Computing rations for farm animals. E. S. Savage. Rev., 1916. 68 p. 1st ed., 1912.
323. A study of feeding standards for milk production. E. S. Savage. 1912. p.59-123.
334. A study of some of the factors influencing the yield and the moisture content of cheddar cheese. W. W. Fisk. 1913. p.515-538.
336. Distribution of moisture and salt in butter. E. S. Guthrie and H. E. Ross. 1913. p.3-21.
337. The Babcock test, with special reference to testing cream. H. E. Ross and T. J. McInerney. 1913. p.27-47.
349. Some important factors for success in general farming and in dairy farming. G. F. Warren. 1914. p.657-702.
355. Two factors causing variation in the weight of print butter. H. M. Pickerill and E. S. Guthrie. 1915. p.99-111.
357. The cost of milk production. H. A. Hopper and F. E. Robertson. 1915. p.135-162.
360. Variations in the tests for fat in cream and skimmed milk. E. S. Guthrie and G. C. Supplee. 1915. p.271-289.
364. Cost of producing milk on 174 farms in Delaware County, New York. A. L. Thompson. 1915. p.111-179.
373. Metallic flavor in dairy products. E. S. Guthrie. 1916. p.609-643.
389. Clarification of milk. T. J. McInerney. 1917. p.487-504.
397. The refinement of feeding experiments for milk production by the application of statistical methods. L. A. Maynard and W. I. Myers. 1918. p.213-249.
398. Feed consumed in milk production. H. A. Hopper, H. M. Bowen and F. S. Barlow. 1918. p.3-15.

NEW YORK (CORNELL) AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

- 400. A comparison of fat tests in milk as determined by a cow-testing association and by a creamery. H. C. Troy. 1920. p.3-68.
- 401. A comparative study of some methods for determining the fat content of skimmilk. T. J. McInerney and H. C. Troy. 1920. p.69-85.
- 409. An economic study of dairying on 149 farms in Broome County, New York. E. G. Misner. 1922. p.271-443.
- 418. The clarification of milk for cheese making. W. W. Fisk and W. V. Price. 1923. 14 p.

Memoirs.

- 18. A study of bacteria in ice cream during storage. H. B. Ellenberger. 1919. p.331-362.
- 29. The lecithin content of butter and its possible relationship to the fishy flavor. G. C. Supplee. 1919. p.97-151.
- 30. Phosphorus in butter. J. T. Cusick. 1920. p.155-187.
- 37. A modified Babcock method for determining fat in butter. N. W. Hepburn. 1920. p.665-690.
- 43. Variations in bacteria counts from milk as affected by media and incubation temperature. G. C. Supplee, W. A. Whiting and P. A. Downs. 1921. p.221-247.
- 66. Simplified apparatus and technique for the electrometric determination of hydrogen ion concentration in milk and other biological liquids. F. E. Rice and A. J. Rider. 1923. 16 p.

Circulars.

- 3. Some essentials in cheese-making. C. A. Publow. 1908. p.17-24.
- 7. An apparatus for measuring acidity in cheese-making and butter-making. C. A. Publow. 1909. p.17-20.
- 10. Propagation of starter for butter-making and cheese-making. E. S. Guthrie. 1911. p.13-16. Rev. by Circ. 13.
- 11. Helps for the dairy butter maker. E. S. Guthrie. 1911. p.17-20.
- 13. Propagation of starter for butter-making and cheese-making. E. S. Guthrie and W. W. Fisk. 1912. 4 p. Rev. of Circ. 10.

NEW YORK (CORNELL) AGRICULTURAL EXPERIMENT STATION.

Circulars. (Cont.)

17. The formation of cow-testing associations. H. H. Wing. 1913. p.53-64.
18. Milking machines: Their sterilization and their efficiency in producing clean milk. Lois W. Wing. 1913. p.65-74.
30. Methods of making some of the soft cheeses. W. W. Fisk. 1915. p.41-62.

Further revisions of circulars here listed and subsequent publications of information of a popular nature was assumed by the Extension Service, New York State College of Agriculture at Cornell University.

NEW YORK (STATE) AGRICULTURAL EXPERIMENT STATION.

Geneva, N. Y.

Bulletins.

178. Inspection of Babcock milk test bottles. W. H. Jordan and G. A. Smith. 1900. p.99-103.
183. Notes on some dairy troubles: Introductory.- flavor in milk and its products; I, fishy flavor in milk; II, bitter flavor in Neufchatel cheese; III, sweet flavor in cheddar cheese; IV, rusty spot in cheddar cheese. H. A. Harding, L. A. Rogers and G. A. Smith. 1900. p.173-193.
183. Popular ed. Dairy disagreeables busy the bacteriologists. F. H. Hall, H. A. Harding, L. A. Rogers, and G. A. Smith. 1900. 9 p.
184. The influence of the temperature of curing upon the commercial quality of cheese. G. A. Smith. 1900. p.195-203.
184. Popular ed. Cold-cured cheese. [I]. F. H. Hall and G. A. Smith. 1900. 2 p.
197. The food source of milk fat with studies on the nutrition of milch cows. W. H. Jordan, C. G. Jentner, and F. D. Fuller. 1901. 32 p.
197. Popular ed. Fat in milk from starch in food. F. H. Hall [and others]. 1901. 8 p.
203. A study of enzymes in cheese. L. L. Van Slyke, H. A. Harding, and E. B. Hart. 1901. p.215-244.

NEW YORK (STATE) AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

- 203, 207. Popular ed. Some problems in cheese curing: What produces casein changes? F. H. Hall, L. L. Van Slyke, H. A. Harding and E. B. Hart.-- How can loss of weight be controlled? F. H. Hall and L. L. Van Slyke. 1901. 16 p.
207. Conditions affecting weight lost by cheese in curing. L. L. Van Slyke. 1901. p.275-305. Popular ed. See 203, Popular ed.
210. The immediate effect on milk production of changes in the ration. W. P. Wheeler. 1901. p.375-433.
210. Popular ed. How changes in feed affect the yield of milk. F. H. Hall and W. P. Wheeler. 1901. 3 p.
214. A study of some of the salts formed by casein and paracasein with acids: Their relations to American cheddar cheese. L. L. Van Slyke and E. B. Hart. 1902. p.53-79.
- 214, 215, 219, 231, 233, 236, 237. Popular ed. Some changes in a ripening cheese. F. H. Hall, L. L. Van Slyke, H. A. Harding, and E. B. Hart. 1903. 14 p.
215. Methods for the estimation of the proteolytic compounds contained in cheese and milk. L. L. Van Slyke and E. B. Hart. 1902. p.82-102. Popular ed. See 214, Popular ed.
219. Some of the compounds present in American cheddar cheese. L. L. Van Slyke and E. B. Hart. 1902. p.203-216. Popular ed. See 214, Popular ed.
225. Control of rusty spot in cheese factories. H. A. Harding and G. A. Smith. 1902. p.303-329.
225. Popular ed. Rusty spot and a remedy. F. H. Hall, H. A. Harding and G. A. Smith. 1902. 7 p.
231. The relation of carbon dioxide to proteolysis in the ripening of cheddar cheese. L. L. Van Slyke and E. B. Hart. 1903. p.19-41. Popular ed. See 214, Popular ed.
233. Rennet-enzyme as a factor in cheese-ripening. L. L. Van Slyke, H. A. Harding and E. B. Hart. 1903. p.67-96. Popular ed. See 214, Popular ed.
234. Experiments in curing cheese at different temperatures. L. L. Van Slyke, G. A. Smith and E. B. Hart. 1903. p.97-121. Also published as a part of U.S.Dept.Agr.Bur.Anim.Indus.Bul.49. p.71-88.

NEW YORK (STATE) AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

234. Popular ed. Cold cured cheese, II. F. H. Hall, L. L. Van Slyke, G. A. Smith and E. B. Hart. 1903. 7 p.
236. Conditions affecting chemical changes in cheese-ripening. L. L. Van Slyke and E. B. Hart. 1903. p.133-163. Popular ed. See 214, Popular ed.
237. The rôle of the lactic-acid bacteria in the manufacture and in the early stages of ripening of cheddar cheese. H. A. Harding. 1903. p.165-180. Popular ed. See 214, Popular ed.
245. Chemical changes in the souring of milk and their relations to cottage cheese. L. L. Van Slyke and E. B. Hart. 1904. 36 p.
245. Popular ed. The chemistry of cottage cheese. F. H. Hall, L. L. Van Slyke and E. B. Hart. 1904. 10 p.
261. Some of the relations of casein and paracasein to bases and acids, and their application to cheddar cheese. L. L. Van Slyke and E. B. Hart. 1905. 37 p.
263. The proteids of butter in relation to mottled butter. L. L. Van Slyke and E. B. Hart. 1905. p.69-93.
263. Popular ed. The causes and prevention of mottles in butter. F. H. Hall, L. L. Van Slyke, and E. B. Hart. 1905. 10 p.
292. Effect of treating milk with carbon dioxide gas under pressure. L. L. Van Slyke and A. W. Bosworth. 1907. p.371-384.
292. Popular ed. Carbonated milk. Summarized by F. H. Hall from bulletin by L. L. Van Slyke and A. W. Bosworth. 1907. 4 p.
308. Methods of paying for milk at cheese-factories. L. L. Van Slyke. 1908. p.469-506.
308. Popular ed. Paying for milk at cheese-factories. Summarized by F. H. Hall from bulletin by L. L. Van Slyke. 1908. 7 p.
317. Milking machines: [I]. Effect of method of handling on germ content of the milk. H. A. Harding, J. K. Wilson and G. A. Smith. 1909. p.253-292.
317. Popular ed. Milking machines and clean milk. Summarized by F. H. Hall from bulletin by H. A. Harding, J. K. Wilson and G. A. Smith. 1909. 10 p.
322. The individual animal as the unit in profitable dairying. G. A. Smith. Mar., 1910. 16 p.

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NEW YORK (STATE) AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

322. Popular ed. Robber cows in dairy herds. Summarized by F. H. Hall from bulletin by G. A. Smith. 1910. 8 p.
326. The modern milk pail. H. A. Harding, J. K. Wilson and G. A. Smith. 1910. p.249-231.
326. Popular ed. Covered pails mean cleaner milk. Summarized by F. H. Hall from bulletin by H. A. Harding, J. K. Wilson and G. A. Smith. 1910. 6 p.
337. Publicity and payment based on quality as factors in improving a city milk supply. H. A. Harding. 1911. p.79-114.
337. Popular ed. How a small city improved its milk supply. Summarized by F. H. Hall from bulletin by H. A. Harding. 1911. 11 p.
353. Milking machines: [II]. Effect of the machine method of milking upon the milk flow. G. A. Smith and H. A. Harding. 1912. p.327-361.
353. Popular ed. Machine milking does not affect milk flow. Summarized by F. H. Hall from bulletin by G. A. Smith and H. A. Harding. 1912. 11 p.
363. The financial stimulus in city milk production. H. A. Harding and J. D. Brew. 1913. p.165-178.
363. Popular ed. The price control factor in the pure milk problem. Summarized by F. H. Hall from bulletin by H. A. Harding and J. D. Brew. 1913. 3 p.
365. The effect of certain dairy operations upon the germ content of milk. H. A. Harding, G. L. Ruehle, J. K. Wilson and G. A. Smith. 1913. p.197-233.
365. Popular ed. Some unessential dairy refinements. Summarized by F. H. Hall from bulletin by H. A. Harding [and others]. 1913. 8 p.
373. A comparison of the microscopical method and the plate method of counting bacteria in milk. J. D. Brew. 1914. 38 p.
- 373, 380. Popular ed. A new method of determining milk quality. Summarized by F. H. Hall from bulletins by J. D. Brew and R. S. Breed. 1914. 16 p.
380. Cells in milk derived from the udder. R. S. Breed. 1914. p.139-200. Popular ed. see 373, Popular ed.

NEW YORK (STATE) AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

398. Milk quality as determined by present dairy score cards. J. D. Brew. 1915. p.107-132.
398. Popular ed. Do low scores always mean poor milk? Summarized by F. H. Hall from bulletin by J. D. Brew. 1915. 11 p.
409. Germ content of stable air and its effect upon the germ content of milk: Methods of bacterial analysis of air; stable air as a source of bacteria in milk. G. L. A. Ruehle and W. L. Kulp. 1915. p.419-474.
409. Popular ed. Milk receives few bacteria from stable air. Summarized by F. H. Hall from bulletin by G. L. A. Ruehle and W. L. Kulp. 1915. 12 p.
412. The pasteurization of dairy by-products. W. D. Dotterrer and R. S. Breed. 1915. p.581-610.
412. Popular ed. Why and how pasteurize dairy by-products. Summarized by F. H. Hall from bulletin by W. D. Dotterrer and R. S. Breed. 1915. 3 p.
429. Goat's milk for infant feeding. W. H. Jordan and G. A. Smith. -- Practical study of goat's milk in infant feeding as compared to cow's milk. D. H. Sherman and H. R. Lohnes. 1917. 20 p.
429. Popular ed. Goat milk good for babies. Summarized by F. H. Hall from bulletin by W. H. Jordan and G. A. Smith. 1917. 7 p.
438. What is meant by "quality" in milk. R. S. Breed, H. A. Harding, W. A. Stocking, jr. and E. G. Hastings. 1917. p.457-475. Also issued as Ill.Agr.Expt.Sta.Circ.205.
439. The number of bacteria in milk. J. D. Brew and W. D. Dotterrer. 1917. p.477-522.
439. Popular ed. How bacteria in milk are counted. Summarized by F. H. Hall from bulletin by J. D. Brew and W. D. Dotterrer. 1917. 11 p.
443. The control of bacteria in market milk by direct microscopic examination. R. S. Breed and J. D. Brew. 1917. p.717-746.
443. Popular ed. Using the microscope in milk grading. Summarized by F. H. Hall from bulletin by R. S. Breed and J. D. Brew. 1917. 10 p.
450. Milking machines: III, As a source of bacteria in milk; IV, Methods of maintaining in a bacteria-free condition. G. L. A. Ruehle, R. S. Breed and G. A. Smith. 1918. p.113-181.

NEW YORK (STATE) AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

450. Popular ed. Control of bacteria in milking machines. Summarized by F. H. Hall from bulletin by G. L. A. Ruehle, R. S. Breed and G. A. Smith. 1918. 15 p.
456. Questions concerning the control of a city milk supply answered. R. S. Breed. 1918. 10 p.
472. Milking machines: V, The production of high grade milk with milking machines under farm conditions. J. W. Bright. 1920. 27 p.
472. Popular ed. Neglect of details in care of milking machines results in low grade milk. Summarized by J. D. Luckett from bulletin by J. W. Bright. 1920. 13 p.
486. The relation of the number of bacteria in milk to the quality and yield of cheese. G. J. Hucker. 1921. 19 p.
488. Milking machines: VI, Leakage from the vacuum pipe line into the pail as a source of contamination of milk. R. S. Breed and J. W. Bright. 1921. 19 p.
488. Popular ed. Leaky valves on milking machines contaminate milk. Summarized by J. D. Luckett from bulletin by R. S. Breed and J. W. Bright. 1921. 8 p.
492. Milking machines: VII, Further studies on methods of sterilization. A. H. Robertson, M. W. Finch and R. S. Breed. 1922. 36 p.
492. Popular ed. Practical suggestions for sterilizing milking machine tubes. Summarized by J. D. Luckett from bulletin by A. H. Robertson, M. W. Finch and R. S. Breed. 1922. 8 p.

Technical Bulletins.

1. A study of the metabolism and physiological effects of certain phosphorus compounds with milch cows. [I]. W. H. Jordan, E. B. Hart and A. J. Patten. 1906. 59 p. Tech. Bul. 20 is a continuation of Tech. Bul. 1.
3. The action of dilute acids upon casein when no soluble compounds are formed; the hydrolysis of the sodium salts of casein. L. L. Van Slyke and D. D. Van Slyke. 1906. p. 75-162.
4. Some of the first chemical changes in cheddar cheese; the acidity of the water-extract of cheddar cheese. L. L. Van Slyke and A. W. Bosworth. 1907. 22 p.

Technical Bulletins. (Cont.)

5. Chemical studies of camembert cheese. A. W. Bosworth. 1907. p.23-39.
6. Chloroform as an aid in the study of milk enzymes. H. A. Harding and L. L. Van Slyke. 1907. p.41-82.
8. The bacterial flora of cheddar cheese. H. A. Harding and M. J. Prucha. 1908. p.121-193.
10. A volumetric method for the determination of casein in milk. L. L. Van Slyke and A. W. Bosworth. 1909. p.231-249.
13. The constancy of certain physiological characters in the classification of bacteria. H. A. Harding. 1910. 41 p.
14. The fermentation of citric acid in milk. A. W. Bosworth and M. J. Prucha. 1910. p.43-48.
20. A study of the metabolism and physiological effects of certain phosphorus compounds with milch cows. II. A. R. Rose. 1912. 32 p. Tech. Bul.20 is a continuation of Tech. Bul.1.
26. Composition and properties of some casein and paracasein compounds and their relations to cheese. L. L. Van Slyke and A. W. Bosworth. 1912. 32 p.
27. A study of the udder flora of cows. H. A. Harding and J. K. Wilson. 1913. 40 p.
31. The action of rennin on casein. A. W. Bosworth. 1913. 7 p.
33. Preparation, composition and properties of caseinates of magnesium. L. L. Van Slyke and O. B. Winter. 1914. 7 p.
34. I, Why sodium citrate prevents curdling of milk by rennin. A. W. Bosworth and L. L. Van Slyke. II, The use of sodium citrate for the determination of reverted phosphoric acid. A. W. Bosworth. 1914. 12 p.
37. Studies relating to the chemistry of milk and casein: I, The cause of acidity of fresh milk of cows and a method for determination of acidity. L. L. Van Slyke and A. W. Bosworth. II, The phosphorus content of casein. A. W. Bosworth and L. L. Van Slyke. III, The action of rennin on casein. (Second paper). A. W. Bosworth. 1914. 11 p.
39. Condition of casein and salts in milk. L. L. Van Slyke and A. W. Bosworth. 1914. 17 p.

NEW YORK (STATE) AGRICULTURAL EXPERIMENT STATION.

Technical Bulletins. (Cont.)

46. The casein and salts of goat's milk. A. W. Bosworth and L. L. Van Slyke. 1915. 15 p.
48. Chemical changes in the souring of milk. L. L. Van Slyke and A. W. Bosworth. 1916. 12 p.
49. Counting bacteria by means of the microscope. R. S. Breed and J. D. Brew. 1916. 31 p.
53. I, The number of colonies allowable on satisfactory agar plates. R. S. Breed and W. D. Dotterer. -- II, A comparison between agar and gelatin as media for the plate method of counting bacteria. H. J. Conn and W. D. Dotterer. 1916. 15 p.
65. Studies relating to milk: I, The preparation of pure casein; II, a method for making electrometric titrations of milk and other solutions containing proteins; III, free lactic acid in sour milk. L. L. Van Slyke and J. C. Baker. 1918. 54 p.
69. Carbonic acid and carbonates in cow's milk. L. L. Van Slyke and J. C. Baker. 1919. 9 p.
70. Conditions causing variation in the reaction of freshly-drawn milk. L. L. Van Slyke and J. C. Baker. 1919. 9 p.
71. A method for the preliminary detection of abnormal milks. J. C. Baker and L. L. Van Slyke. 1919. 14 p.
72. The determination of the keeping quality of milk. J. C. Baker and L. L. Van Slyke. 1919. 8 p.
73. The use of the nitrate-reduction test in characterizing bacteria. H. J. Conn and R. S. Breed. 1919. 21 p.
74. Relation between lactic acid production and bacterial growth in the souring of milk. J. C. Baker, J. D. Brew and H. J. Conn. 1919. 24 p.
75. The accuracy of bacterial counts from milk samples. R. S. Breed and W. A. Stocking. 1920. 97 p.
78. The carbon dioxide content as a basis for distinguishing heated from unheated milk. L. L. Van Slyke and R. F. Keeler. 1920. 7 p.
80. The reaction of milk in relation to the presence of blood cells and of specific bacterial infections of the udder. J. C. Baker and R. S. Breed. 1920. 19 p.

NEW YORK (STATE) AGRICULTURAL EXPERIMENT STATION.

Technical Bulletins. (Cont.)

- 86. The relation between bacterial counts from milk as obtained by microscopic and plate methods. A. H. Robertson. 1921. 21 p.
- 87. The microscopic study of bacteria in cheese. G. J. Hucker. 1921. 11 p. Also in U.S.Dept.Agr.Jour.Agr.Res.22 (1921), No.2, p.93-100.
- 89. Review of the bacteriological aspects of cheese ripening. G. J. Hucker. 1922. 36 p.
- 90. The types of bacteria found in commercial cheddar cheese. G. J. Hucker. 1922. 38 p.

Circulars.

- 54. Milking machines may be of great service during the present labor shortage if used on farms where 20 or more cows are kept. Rev., 1918. 5 p. 1st.ed. 1917. 4 p.
- 56. The standardization of market milk. L. L. Van Slyke. 1918. 9 p.
- 58. Counting bacteria by means of the microscope. R. S. Breed and J. D. Brew.-- Practical application of the microscope examination of milk to commercial grading. n. d. 11 p.

NORTH CAROLINA AGRICULTURAL EXPERIMENT STATION.

Raleigh, N. C.

Bulletins.

- 192. Farm dairying. J. C. Kendall. 1905. 48 p.
- 198. Handling and marketing milk and cream. John Michels. 1908. 24 p.
- 199. Feeding experiments with cows and calves. John Michels. 1908. 16 p.
- 202. Manufacture and marketing of cottage cheese, skim-milk, buttermilk, and ice-cream. John Michels. 1909. 11 p. For partial rev. see Bul.210.
- 210. Improved methods for making cottage and Neufchatel cheese. John Michels. 1910. p.29-38. Partial rev.of Bul.202.
- 213. Feeding experiments with cows and calves. John Michels. 1910. p.89-97.

NORTH CAROLINA AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

220. Care and management of the dairy herd. J. C. McNutt. 1911.
p.73-84.
240. Composite versus one-day sampling of milk for the Babcock test.
W. H. Eaton. 1913. 3 p.

Circular.

33. Cow records pay. [1916] Printed on heavy paper 16x20 in., on
reverse of a blank for "Daily Milk and Feed Record."

NORTH DAKOTA AGRICULTURAL EXPERIMENT STATION.
Agricultural College, N. Dak.

Bulletins.

91. Dairy herd records. J. H. Shepperd and W. B. Richards. 1911.
p.129-163.
102. Organizing cow-testing associations and co-operative creameries.
G. L. Martin. 1912. 26 p.
109. Report of four years work of the North Dakota Holstein cattle
breeding circuit. J. H. Shepperd and W. B. Richards. 1914.
p.95-153.

OHIO AGRICULTURAL EXPERIMENT STATION.
Columbus, Ohio

Bulletins.

155. Silage vs. grain for dairy cows. C. G. Williams. 1904. p.65-85.
207. The balance between inorganic acids and bases in animal nutrition.
E. B. Forbes. 1909. p.23-52.
267. The value of soybean and alfalfa hay in milk production. R. E.
Caldwell. 1913. p.125-145.

OHIO AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

289. Raising dairy heifers: Cost, feeding and care. C. C. Hayden. 1915. 30 p.
295. The mineral metabolism of the milch cow; First paper. E. B. Forbes [and others]. 1916. p.323-348.
308. The mineral metabolism of the milch cow: Second paper. E. B. Forbes [and others]. 1917. p.449-481.
327. Clover vs. alfalfa for milk production. C. C. Hayden. 1918. 36 p.
330. The mineral metabolism of the milch cow: Third paper. E. B. Forbes [and others]. 1918. p.89-134.
334. Dairy production in Ohio. R. I. Grady and M. O. Bugby. 1919. p.507-541.
363. The mineral metabolism of the milch cow. E. B. Forbes: [and others]. 1922. 59 p.

Bulletins. (Technical Series.)

5. A review of the literature of phosphorus compounds in animal metabolism. E. B. Forbes and M. H. Keith. 1914. 748 p.
6. The metabolism of organic and inorganic compounds of phosphorus. E. B. Forbes [and others]. 1914. 80 p.
8. Studies on the estimation of inorganic phosphorus in plant and animal substances. E. B. Forbes, F. M. Beegle and A. F. D. Wissow. 1915. 48 p.

Monthly Bulletins.

- v.I, no.2. p.49-53. Beets and mangels compared with silage for milk production. C. C. Hayden. Feb., 1916.
- v.I, no.5. p.141-142. Heavy silage vs. heavy grain feeding for dairy cows. C. C. Hayden. May, 1916.
- v.I, no.6. p.186-188. The mineral requirements of the milch cow. E. B. Forbes. June, 1916.
- v.I, no.7. p.211-215. The influence of sires on production. C. C. Hayden. 1916.
- v.I, no.8. p.245-248. Does it pay to take extra care of cows? C. C. Hayden. Aug., 1916.

OHIO AGRICULTURAL EXPERIMENT STATION

Monthly Bulletins. (Cont.)

- v.I,no.10. p.304-306. Variations in the composition of skimmilk. A. E. Perkins. Oct., 1916.
- v.I,no.11. p.351-352. Soil fertility considerations in the feeding of hogs and milch cows. E. B. Forbes. Nov., 1916.
- v.II,no.1. p.19-22. The feeding situation: Suggestions for computing winter rations for dairy cows. C. C. Hayden. Jan., 1917.
- v.II,no.2. p.58-60. Mineral requirements of dairy cows: Heavy milk production involves loss of mineral from the body. E. B. Forbes. Feb., 1917.
- v.II,no.6. p.193-197. Cost of milk production: Cost accounts show expenses for veals, calves, heifers and cows. June, 1917.
- v.II,no.9. p.291-298. Raising dairy heifers: Cost of production is often underestimated. Sept., 1917.
- v.II,no.10. p.334-338. Economy of production by dairy cows: A comparison of large and small cows in milk yield. R. I. Grady. Oct., 1917.
- v.II,no.11. p.365-369. Nutrients returned by dairy cows: Stage of lactation and individuality affect cost of milk production. R. I. Grady. Nov., 1917.
- v.II,no.12. p.387-390. Roughages for milk production: Legume hays may replace much high-priced grain. C. C. Hayden. Dec., 1917.
- v.II,no.12. p.401-406. Stage of lactation affects milk yield: Persistent milkers become winners in long run. R. I. Grady. Dec., 1917.
- v.III,no.1. p.8-10. Mineral metabolism of the milch cow: Legumes highly essential in feeding for heavy milk production. E. B. Forbes. Jan., 1918.
- v.III,no.4. p.128-134. A neglected source of valuable human food: Cottage cheese can partly replace meats in human diets. A. E. Perkins. Apr., 1918.
- v.III,no.6. p.184-186. Clover vs. alfalfa: Four feeding tests compare legumes for milk production. C. C. Hayden. June, 1918.
- v.III,no.10. p.317-318. Manurial values of dairy feeds. R. I. Grady. Oct., 1918.

OHIO AGRICULTURAL EXPERIMENT STATION.

Monthly Bulletins. (Cont.)

- v.III,no.12. p.363-366. How to determine the cost of milk, [I]. Department of Dairy Husbandry. Dec., 1918.
- v.III,no.12. p.367-370. Centrifugal recovery of cheese from buttermilk. A. E. Perkins. Dec., 1918.
- v.IV,no.1. p.1-8. Rotation of dairy farm crops: Phosphorus and calcium must be added to maintain fertility. C. E. Thorne. Jan., 1919.
- v.IV,no.1. p.17-21. How to determine the cost of milk, II. Department of Dairy Husbandry. Jan., 1919.
- v.IV,no.7. p.225-227. The Ohio Experiment Station dairy herd. Department of Dairy Husbandry. July, 1919.
- v.IV,no.9. p.276-283. Recovering cottage cheese curd from buttermilk: Tests with centrifugal machines as compared with older methods. A. E. Perkins. Sept., 1919.
- v.IV,no.10. p.306-312. Home-mixed or proprietary feeds for the dairy herd. A. E. Perkins. Oct., 1919.
- v.IV,no.12. p.369-371. Usefulness of production records in dairy management: Three hours' time per cow a year required to secure data. A. E. Perkins. Dec., 1919.
- v.V,no.7. p.205-215. Mineral feeds for farm animals: Practical suggestions deduced from experimental data. E. B. Forbes. July, 1920.
- v.VI,nos.5 & 6. p.82-84. Official records in the Ohio Station dairy herds. C. C. Hayden. May-June, 1921.
- v.VI,nos.9 & 10. p.149-152. Crop rotations for a dairy farm: Lessons from the Hamilton County experiment farm. C. W. Montgomery. Sept.-Oct., 1921.
- v.VII,nos.3 & 4. p.54-57. A case of twinning in dairy cattle. C. C. Hayden. Mar.-Apr., 1922.
- v.VII,nos.11 & 12. p.193-196. Feeding dairy steers. C. Bohstedt. Nov.-Dec., 1922.
- v.VIII,nos.5 & 6. p.84-85. Raising dairy steers. C. C. Hayden. May-June, 1923.

OHIO AGRICULTURAL EXPERIMENT STATION.

Circulars.

- 29. Butter and milk tests of registered cows. J. F. Hickman. 1901. p.54-56.
- 30. Instructions to testers. J. F. Hickman. 1901. p.56-58.
- 67. The value of individual records of dairy cows. B. E. Carmichael. 1907. 10 p.
- 99. Cooperative dairy work. L. H. Goddard and M. O. Bugby. 1910. 8 p.
- 122. Testing the dairy cow. T. R. Middaugh. 1912. p.123-134.
- 123. Feeding dairy cows. C. C. Hayden. 1912. p.183-211.
- 134. The care of cream. A. E. Perkins. 1913. p.57-77.
- 135. Building up the dairy herds of Ohio. 1913. p.79-100.
- 136. Care of the dairy herd. 1913. p.101-126.

OKLAHOMA AGRICULTURAL EXPERIMENT STATION.

Stillwater, Okla.

Bulletins.

- 75. A study of the bacterial content of cream. L. L. Lewis and W. R. Wright. 1907. 16 p.
- 99. Dairying in Oklahoma: I, Some results obtained in feeding dairy cows. R. C. Potts.-- II, Principles of feeding, feeding dairy cattle and experiments in milk production. C. I. Bray.-- III, Care and management of dairy cattle. C. I. Bray. 1913. 55 p.
- 107. Using the Babcock test. J. M. Fuller. 1915. 15 p.
- 108. The production of first grade cream. R. C. Potts. 1916. 11 p.
- 114. The determination of fat in certain milk products. C. K. Francis and D. G. Morgan. 1917. 3 p.

Circular.

- 36. Silage feeding. C. I. Bray. 1914. 8 p.

OREGON AGRICULTURAL EXPERIMENT STATION.
Corvallis, Oreg.

Bulletins.

- 65. Creameries and cheese factories of western Oregon. F. L. Kent. 1901. p.27-60.
- 70. Testing milk and cream. F. L. Kent. 1902. p.163-176.
- 71. Stagnant water germs in milk. E. F. Pernot. 1902. p.179-184.
- 78. Canning cheese. E. F. Pernot. 1904. 8 p.
- 83. The perpetuation of pure cultures for butter starters. E. F. Pernot. 1904. 7 p.
- 89. I, Efficiency of cream separators under farm conditions. I. P. Whitney.-- II, Dairy school cream separator tests. F. L. Kent. 1906. 17 p.
- 102. Digestibility of kale, vetch hay, steamed and unsteamed silage. James Withycombe and C. E. Bradley. 1908. p.3-29.
- 155. The use of pepsin as a rennet substitute in cheddar cheesemaking. P. S. Lucas. 1918. 15 p.
- 156. The part of milk contests in improving the milk supply of Portland, Oregon. E. C. Callaway and P. S. Lucas. 1918. 24 p.

Circulars.

- 8. Better cows. F. L. Kent. 1910. p.26-30.
- 9. Iron cow stall; Hoard-Schulmerich stall. F. L. Kent. 1910. 4 p.
- 18. Dairy cows and alfalfa. F. L. Kent. 1911. p.36-37.
- 41. Official testing of dairy cattle in Oregon. H. N. Colman. 1923. 38 p.

PENNSYLVANIA AGRICULTURAL EXPERIMENT STATION.
State College, Pa.

Bulletins.

- 54. The manurial value of the excreta of milch cows. W. S. Sweetser. 1900. 7 p.
- 56. Methods of dairy feeding. Harry Hayward. 1901. 6 p.

PENNSYLVANIA AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

60. The rearing of calves on milk substitutes. Harry Hayward. 1902. 12 p.
73. Distillers' dried grains vs. cotton seed meal as a source of protein. H. P. Armsby and A. K. Risser. 1905. 11 p.
80. A comparison of alfalfa meal and wheat bran for dairy cows. T. I. Mairs. 1906. 10 p.
84. Feed as a source of energy. H. P. Armsby. 1907. 16 p.
85. Test of a mechanical cow milker. T. I. Mairs. 1908. 11 p.
93. A study of Pennsylvania butter. H. E. Van Norman and C. W. Lawson. 1909. 14 p.
104. The respiration calorimeter at the Institute of Animal Nutrition of the Pennsylvania State College. H. P. Armsby. 1910. 16 p. A reprint with additions of Expt. Sta. Record, 15 (1903-4), p. 1037-1050.
105. Influence of type and of age upon the utilization of feed by cattle. H. P. Armsby and J. A. Fries. 1910. 22 p. A more detailed account published as U. S. Dept. Agr., Bur. Anim. Indus., Bul. 128.
111. The maintenance ration of cattle. H. P. Armsby. 1911. 20 p.
114. A short method of computing dairy rations according to the net energy standards. H. E. Van Norman. 1912. 19 p. Bul. 143 is based on Buls. 114, 142.
135. A study of the manufacture of dairy butter; methods of making farm butter. E. L. Anthony. 1915. 30 p.
142. Net energy values for ruminants. H. P. Armsby and J. A. Fries. -- Net energy values of American feeding stuffs. H. P. Armsby and F. S. Putney. 1916. 20 p. Bul. 143 is based on Buls. 114, 142.
143. Computation of dairy rations. F. S. Putney and H. P. Armsby. 1916. 24 p. Based on Buls. 114, 142. For revision see Bul. 161.
159. Dairy farming in southeastern Pennsylvania. G. A. Billings. 1919. 42 p.
161. Computation of dairy rations. [Revised by A. A. Borland from Bul. 143 by F. S. Putney and H. P. Armsby]. 1920. 23 p.

PENNSYLVANIA AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

172. Sunflower silage for milk production. S. I. Bechdel. 1922. 16 p.
178. Silage feeding investigations for milk production. S. I. Bechdel.
1923. 23 p.

PORTO RICO AGRICULTURAL EXPERIMENT STATION.

Mayaguez, Porto Rico.

Bulletins.

29. Dairying in Porto Rico. D. W. May. 1922. 19 p.

RHODE ISLAND AGRICULTURAL EXPERIMENT STATION.

Kingston, R. I.

Bulletins.

77. p.131-172. Rations for the milch cows. H. J. Wheeler and J. A. Tillinghast. 1901.
80. A modern dairy barn. A. A. Brigham.-- Individuality of cows. W. A. Conant. 1901. p.17-107.
136. Ropy milk in Rhode Island. L. J. Cole and P. B. Hadley. 1909. p.129-152.

SOUTH CAROLINA AGRICULTURAL EXPERIMENT STATION.

Clemson College, S. C.

Bulletins.

66. Feeding corn stover; dehorning milch cows. C. M. Conner. 1902. 9 p.
67. Stock feeding. C. M. Conner. 1902. 13 p.

SOUTH CAROLINA AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

95. The milk scales, the milk sheet, and the Babcock test for the farmers of South Carolina. B. H. Rawl. 1905. 17 p.
117. A comparison of wheat bran and cotton seed meal for milk production. John Michels and J. M. Burgess. 1905. 18 p.
118. Gathered cream plants. John Michels. 1906. 12 p.
125. Preliminary report on the water content, melting point, and keeping quality of butter. John Michels and F. S. Shiver. 1907. 14 p.
131. Cotton seed meal and corn silage as a ration for dairy cows. John Michels and J. M. Burgess. 1907. 11 p.

SOUTH DAKOTA AGRICULTURAL EXPERIMENT STATION.

Brookings, S. Dak.

Bulletins.

73. Variations in cream and milk tests. A. H. Wheaton. 1902. 14 p.
73. Supplement. Circular of information on building and equipping creameries, with instructions how to organize and maintain co-operative creamery associations in South Dakota. A. H. Wheaton. 1902. 14 p.
81. Feeding dairy cows. J. W. Wilson and H. G. Skinner. 1903. p.27-40.
111. A study of South Dakota butter with suggestions for improvements. Christian Larsen and J. H. Shepard. 1909. p.453-432.
116. Acidity of creamery butter and its relation to quality. Christian Larsen, T. H. Lund, and L. F. Miller. 1909. p.573-594. Bul. 122 is a continuation of Bul.116.
122. Creamery butter: 1, Factors affecting acidity; 2, the acid test as a measure of deterioration; 3, handling cream to improve quality of butter. Christian Larsen, T. H. Lund, and L. F. Miller. 1910. p.701-730. Continuation of Bul.116.
123. Milk powder starters in creameries. Christian Larsen and W. White. 1910. 14 p.

SOUTH DAKOTA AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

132. Effects of alkali water on dairy products. Christian Larsen, W. White, and D. E. Bailey. 1912. p.220-254. See also Bul.147.
134. More winter dairying in South Dakota. Christian Larsen. 1912. p.286-305.
144. Preliminary report on the milking machine. Christian Larsen, William White, and J. W. Fuller. 1913. p.205-232.
147. Effect of alkali water on dairy cows. Christian Larsen and D. E. Bailey 1913. p.300-325. See also Bul.132.
152. Testing and handling dairy products. Christian Larsen and J. M. Fuller. 1914. p.23-56.
164. Making butter and cheese on the farm. Christian Larsen and V. R. Jones. 1916. p.345-375.
166. Important factors affecting machine milking. Christian Larsen. 1916. p.394-421.
171. Pasteurization of cream. Christian Larsen [and others]. 1916. p.529-548.
175. The role of water in a dairy cow's ration. Christian Larsen, E. H. Hungerford and D. E. Bailey. 1917. p.649-680.
188. Relative values of feed proteins for dairy cows. Christian Larsen [and others]. 1920. p.162-204.
195. Feeding dairy cattle. T. M. Olson. 1921. p.358-372.
197. Milk testing in practice. H. M. Jones and T. H. Wright. 1922. p.417-431.
198. Influence of purebred dairy sires. T. M. Olson and G. C. Biggar. 1922. p.433-467.

TENNESSEE AGRICULTURAL EXPERIMENT STATION.
Knoxville, Tenn.

Bulletins.

- [70.] v.XVII,no.4. Replacing grain with alfalfa in a ration for dairy cows. A. M. Soule and S. E. Barnes. 1904. p.71-92.
80. Home-grown rations in economical production of milk and butter. J. N. Price. 1908. p.31-50.
83. Comparison and improvement of dairy herds in Tennessee. S. E. Barnes. 1909. 12 p.
116. How to feed live stock successfully. C. A. Willson. 1913. p.49-106.

TEXAS AGRICULTURAL EXPERIMENT STATION.
College Station, Tex.

Bulletins.

225. Cocoanut meal vs. cottonseed meal for dairy cows. P. V. Ewing and E. R. Spence. 1918. 9 p.
238. Dairy cattle feeding experiments. P. V. Ewing, J. W. Ridgway and W. A. Doubt. 1918. 14 p.

Circular.

15. A milk house for Texas. Leroy Rhodes. 1916. 7 p.

UTAH AGRICULTURAL EXPERIMENT STATION.
Logan, Utah.

Bulletins.

63. Experiments with dairy cows: I, A study of their records; II, winter feeding experiments; III, summer feeding experiments. F. B. Linfield. 1900. p.167-309.
73. Experiments in butter making and cheese making. F. B. Linfield. 1901. 54 p.

UTAH AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

79. Process butter, a dairy fraud. R. W. Clark and J. A. Crockett. 1903. p.58-61.
96. Care of milk on the farm and the manufacture of butter and cheese. R. W. Clark.-- [Canning and paraffining cheese]. R. W. Clark and J. A. Crockett. 1906. p.113-135.
101. Feeding experiments with cattle, sheep, swine and horses. R. W. Clark. 1906. [Feeding sugar beets and sugar beet pulp to dairy cows. p.159-165.]
126. A comparison of first, second and third crop alfalfa hay for milk production. W. E. Carroll. 1913. p.153-189.
127. Report of the Richmond-Lewiston cow testing association. W. E. Carroll. 1913. p.193-242.
153. Selecting dairy bulls by performance. W. E. Carroll. 1917. 19 p.

VERMONT AGRICULTURAL EXPERIMENT STATION.

Burlington, Vt.

Bulletins.

96. Apple pomace a good feed for cows. J. L. Hills. 1902. 7 p.
100. Paying for separator cream at the creamery. J. L. Hills. 1903. 24 p.
123. The testing of cows. J. L. Hills. 1907. p.55-88.
155. Principles and practice of ice cream making. R. M. Washburn. 1910. 92 p.
170. "Mony meikles mak a muckle": Studies of the rennet coagulation of milk. R. M. Washburn and A. P. Bigelow.-- The control of the moisture content of butter. C. L. Beach, A. P. Bigelow and R. H. Allen.-- A bacterial infection of condensed milk. L. A. Thayer.-- The value of the escutcheon in judging dairy cattle. C. F. Moran.-- Mock silage. C. L. Beach. 1912. p.120-127.
195. Studies of the values of different grades of milk in infant feeding. R. M. Washburn and C. H. Jones. 1915. 134 p. For popular ed. see Bul.201.

VERMONT AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

201. Value of different grades of milk in infant feeding. R. M. Washburn and C. H. Jones. 1916. 32 p. A popular ed. of Bul. 195.
202. "Mony meikles mak a muckle", II: The relation of the milk-vein system to production. A. W. Aldrich and J. W. Dana.-- The cost of production of milk and butterfat in 1911 and 1912. G. M. Nelson.-- The effect of the sire on the herd. J. H. Wilson.-- Concerning the Burlington milk supply. J. E. Carrigan and W. T. Abell. 1917. 47 p.
209. The cost of producing market milk in 1916-17 on 212 Vermont farms. G. F. E. Story and W. J. Tubbs. 1917. 24 p.
213. Cold storage of cottage and other soft curd cheeses. H. B. Ellenberger. 1919. 22 p.
225. The protein requirements of dairy cows. J. L. Hills, C. L. Beach, A. A. Borland, R. M. Washburn, G. F. E. Story and C. H. Jones. 1922. 199 p. Bul. 229 is a popular ed. of Buls. 225, 226.
226. The maintenance requirements of dairy cattle. J. L. Hills. 1922. 191 p. Bul. 229 is a popular ed. of Buls. 225, 226.
229. The protein and maintenance requirements of dairy cattle. J. L. Hills. 1922. 10 p. Popular ed. of Buls. 225, 226.

VIRGINIA AGRICULTURAL EXPERIMENT STATION.
Blacksburg, Va.

Bulletins.

122. Comparative skimming qualities of Holstein and Jersey milk. W. D. Saunders. 1901. p. 23-29.
156. Gluten and cotton-seed meal with silage, hay and stover for dairy cows. A. M. Soule and J. R. Fain. 1905. 30 p.
162. Improving the quality of cream from inferior milk. W. D. Saunders. 1906. p. 147-156.
169. Protein requirements for dairy cows. A. M. Soule, J. R. Fain, and M. P. Jarnagin. 1907. p. 293-313.
170. Studies in milk and butter production. A. M. Soule, J. R. Fain and M. P. Jarnagin. 1907. 44 p.

VIRGINIA AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

172. Grains to supplement skim-milk for calves. J. R. Fain and M. P. Jarnagin. 1907. p.83-94.
185. The production of clean and sanitary milk: Results of experiments to determine the number of bacteria in milk produced under different conditions, and their significance. W. K. Brainerd. 1909. 24 p.
186. The efficiency of hand separators. W. K. Brainerd and W. L. Mallory. 1910. 19 p.
190. Cooperative herd testing. W. D. Saunders and C. W. Holdaway. 1911. 30 p.
194. Milk standards: A study of the bacterial count and dairy score card in city milk inspection. W. K. Brainerd and W. L. Mallory. 1911. 20 p.
211. Effects of binders upon the melting and hardness of ice cream. C. W. Holdaway and R. R. Reynolds. 1916. 19 p.
219. Wintering dairy heifers. R. E. Hunt. 1918. 20 p.
225. Wintering dairy heifers. R. E. Hunt. 1921. 15 p.

Technical Bulletins.

7. Smoothness and keeping qualities in ice cream, as affected by solids. W. K. Brainerd. 1915. p.154-159.
10. Some effects of temperature upon the growth and activity of bacteria in milk. H. S. Reed and R. R. Reynolds. 1916. 26 p.
12. The effects of high protein and high energy rations in feeding dairy cows. W. B. Ellett and C. W. Holdaway. 1917. p.29-45.
20. The effects of high protein and high energy rations in feeding dairy cows. W. B. Ellett and C. W. Holdaway. 1920. 16 p.
23. Feeding standards for milk production. W. B. Ellett, C. W. Holdaway and W. G. Harris. 1921. 52 p.

Circular.

8. The dairy cow and her record. W. K. Brainerd. 1909. 23 p.

WASHINGTON AGRICULTURAL EXPERIMENT STATION.
Pullman, Wash.

Bulletin.

173. The cost of producing milk, and dairy farm organization in western Washington. George Severance and E. R. Johnson. 1922. 50 p.

Popular Bulletins.

12. The care of milk on the farm. I. P. Whitney. 1903. 4 p.
41. Butter-making on the farm. A. B. Nystrom. 1911. 4 p.
53. Cause of variation in per cent of fat of market cream from farm separators. V. R. Jones. 1913. 8 p.
55. Cleanliness and cold as applied to the dairy. A. B. Nystrom. 1913. 8 p.
75. The Babcock test and its application. R. E. Hundertmark. 1915. 14 p.
92. Feeding dairy cows in Washington. A. B. Nystrom. 1915. 23 p.
95. The dairy barn and milk house, how to construct them. R. E. Hundertmark and A. B. Nystrom. 1915. 39 p.
96. Butter-making on the farm. A. B. Nystrom and R. E. Hundertmark. 1915. 23 p.
97. Dairy herd records, their value, and how to keep them. A. B. Nystrom and R. E. Hundertmark. 1915. 16 p.
123. Plans for small barns. L. J. Smith. 1923. 26 p.

WEST VIRGINIA AGRICULTURAL EXPERIMENT STATION.
Morgantown, W. Va.

Bulletins.

106. Feeding experiments with milch cows. J. H. Stewart and Horace Atwood. 1906. p.337-345.
109. Feeding grain to milch cows at pasture. J. H. Stewart and Horace Atwood. 1907. 15 p.
111. Bacteria in milk and artificial refrigeration for dairymen. J. H. Stewart and Horace Atwood. 1908. p.33-53.
134. Experiments in the production of sanitary milk. Horace Atwood and N. J. Giddings. 1911. p.83-105.

WISCONSIN AGRICULTURAL EXPERIMENT STATION.
Madison, Wis.

Bulletins.

88. Dairy industry in Wisconsin. H. L. Russell. 1901. 11 p.
94. Curing of cheddar cheese, with especial reference to cold-curing. S. M. Babcock and H. L. Russell. 1902. 44 p.
96. Investigations of methods of milking. F. W. Woll. 1902. 78 p.
101. Shrinkage of cold-cured cheese during ripening. S. M. Babcock, H. L. Russell, and U. S. Baer. 1903. 30 p.
102. Studies in milk production based on records of cows in the university dairy herd, 1898-1903. W. L. Carlyle and F. W. Woll. 1903. 88 p.
103. Soiling crops for dairy cows in Wisconsin. W. L. Carlyle, J. R. Danks, and G. E. Morton. 1903. 14 p.
107. Official tests of dairy cows, 1902-3. F. W. Woll. 1903. 43 p.
115. The quality of cheese as affected by rape and other green forage plants fed to dairy cows. U. S. Baer and W. L. Carlyle. 1904. 16 p.
116. On the relation of food to the production of milk and butter fat by dairy cows. F. W. Woll. 1904. 85 p. Bul.117 is a popular ed. of Bul.116.
117. The relation of food to dairy production. F. W. Woll. 1904. 16 p. A popular ed. of Bul.116.
128. A Swiss cheese trouble caused by a gas-forming yeast. H. L. Russell and E. G. Hastings. 1905. 26 p.
129. Some creamery problems. E. H. Farrington. 1905. 26 p.
131. Official tests of dairy cows, 1904-5. F. W. Woll. 1905. 46 p.
132. The manufacture of whey butter at Swiss cheese factories. E. H. Farrington. 1905. 32 p. Issued in two forms, one of which includes a German translation.
140. Development of factory dairying in Wisconsin, with map showing location of cheese factories and creameries. H. L. Russell and U. S. Baer. 1906. 18 p.
144. Official tests of dairy cows, 1905-6. F. W. Woll and R. T. Harris. 1907. 65 p.
148. The pasteurization and the inspection of creamery and cheese factory by-products. E. H. Farrington and E. G. Hastings. 1907. 17 p.

WISCONSIN AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

- 152. A comparison of aniline and anatto butter colors in butter making. E. H. Farrington and Martin Meyers. 1907. 19 p.
- 154. A creamery method for the determination of water in butter. E. H. Farrington. 1907. 19 p.
- 156. A simple test for casein in milk and its relation to the dairy industry. E. B. Hart. 1907. 22 p.
- 160. Tests of dairy cows, 1906-7. F. W. Woll and R. T. Harris. 1908. 39 p.
- 162. Rusty cans and their effect upon milk for cheese making. G. A. Olsen. 1908. 12 p.
- 167. The university dairy herd management and records, 1907-8. G. C. Humphrey, and F. W. Woll. 1908. 27 p.
- 172. Tests of dairy cows, 1907-8. F. W. Woll and R. T. Harris. 1909. 33 p.
- 173. Milking machine experiments. F. W. Woll and G. C. Humphrey. 1909. 30 p.
- 181. The propagation of pure starters for butter and cheese making. E. G. Hastings. 1909. 17 p.
- 182. The Wisconsin butter and cheese scoring exhibitions. E. H. Farrington and M. Michels. 1909. 42 p.
- 185. Sanitary cow stalls. C. A. Ocock. 1909. 13 p. Superseded by Bul. 325.
- 187. The university dairy herd, 1908-9. G. C. Humphrey and F. W. Woll. 1909. 22 p.
- 189. Community breeders' associations for dairy cattle improvement. G. C. Humphrey. 1910. 21 p.
- 191. A decade of official tests of dairy cows, 1899-1909, with tests conducted during 1908-9. F. W. Woll and R. T. Harris. 1910. 49 p.
- 192. The dairy calf at meal time. D. H. Otis. 1910. 14 p.
- 195. New and improved tests of dairy products. S. M. Babcock and E. H. Farrington.-- The preparation of buttermilk curd. J. L. Sanmis. 1910. 21 p.

WISCONSIN AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

197. Methods of paying for milk at cheese factories. S. M. Babcock, E. H. Farrington and E. B. Hart. 1910. 24 p.
200. The selection of feeds for dairy cows. F. W. Woll and G. C. Humphrey. 1911. 17 p. A popular ed. of Res.Bul.13.
210. The progress of the dairy industry in Wisconsin. H. C. Taylor and C. E. Lea. 1911. 30 p.
211. Buttermilk cheesemaking at the creamery. J. L. Sammis. 1911. 17 p. For rev. see Bul.239.
217. Practical lessons from the management of the university dairy herd. G. C. Humphrey and F. W. Woll. 1911. 34 p.
220. Better cream through grading; a new butter moisture test. G. H. Benkendorf. 1912. 14 p.
226. The Wisconsin dairy cow competition. F. W. Woll and R. T. Harris. 1912. 36 p. For more detailed discussion see Res.Bul.26.
231. The marketing of Wisconsin cheese. H. C. Taylor, W. A. Schoenfeld and G. S. Wehrwein. 1913. 46 p.
235. Soiling crops vs. silage for dairy cows in summer. F. W. Woll, G. C. Humphrey and A. C. Oosterhuis. 1914. 16 p.
239. Three creamery methods for making buttermilk cheese. J. L. Sammis. 1914. 24 p. Includes a rev. of Bul.211.
241. Some improved dairy tests and methods: I. One way to determine the overrun in the making of ice cream. G. H. Benkendorf.-- II. A burette for calibrating Babcock test bottles. G. H. Benkendorf.-- III. A wire cheese curd knife. G. H. Benkendorf and A. T. Bruhn.-- IV. An attachment for the milk sediment tester. A. C. Paer.-- V. Cheese making tests with homogenized milk. J. L. Sammis. 1914. 19 p.
244. Organization and construction of creameries and cheese factories. E. H. Farrington and G. H. Benkendorf. 1915. 51 p.
245. The disposal of creamery sewage. E. H. Farrington and G. J. Davis, Jr. 1915. 20 p.
246. Making whey butter at cheddar cheese factories. J. L. Sammis. 1915. 24 p.
251. Markets and prices of Wisconsin cheese. B. H. Hibbard and Asher Hobson. 1915. 56 p.

WISCONSIN AGRICULTURAL EXPERIMENT STATION.

Bulletins. (Cont.)

262. Ice cream making. A. C. Baer. 1916. 36 p.
266. Barns for Wisconsin dairy farms. F. M. White and C. I. Griffith. 1916. 32 p. Superseded by Bul.325.
270. The marketing of Wisconsin butter. B. H. Hibbard and Asher Hobson. 1916. 69 p.
274. Judging dairy cows. G. C. Humphrey. 1916. 41 p.
276. Correct payment for cheese factory milk by the Babcock test. J. L. Sammis. 1917. 42 p.
285. Marketing Wisconsin milk. B. H. Hibbard and H. E. Erdmann. 1917. 71 p.
287. New facts on feeding cattle for successful growth and reproduction. E. B. Hart, Harry Steenbock and G. C. Humphrey. 1918. 24 p.
291. Milk necessary for the nation's welfare. E. B. Hart and Harry Steenbock. 1918. 20 p.
315. Cottage cheese and buttermilk cheese: Their manufacture and sale. J. L. Sammis. 1920. 16 p.
321. Cheesemakers save by figuring costs. J. L. Sammis and O. A. Juve. 1920. 20 p.
325. Dairy barns. O. R. Zeasman, G. C. Humphrey and L. M. Schindler. 1921. 34 p. Supersedes Buls.185,266.
335. Judging dairy cattle. G. C. Humphrey. 1921. 44 p.
341. The use of fertilizers on dairy farms. A. R. Whitson and Griffith Richards. 1922. 24 p.
342. Milk the best food. H. Steenbock and E. B. Hart. 1922. 19 p.
345. Why costs of milk vary: Possibilities of cow testing associations. P. E. McNall and D. R. Mitchell. 1922. 24 p.
350. Minerals for livestock. E. B. Hart, H. Steenbock and F. B. Morrison. 1923. 21 p.

Research Bulletins.

3. The efficiency, economy and physiological effect of machine-milking. F. W. Woll and G. C. Humphrey. 1909. p.61-148.

WISCONSIN AGRICULTURAL EXPERIMENT STATION.

Research Bulletins. (Cont.)

6. Studies on the bacterial and leucocyte content of milk: Bacterial content of the milk of individual animals. E. G. Hastings and C. Hoffman.-- The occurrence and distribution of a lactic acid organism resembling the Bacillus bulgaricus of yogurt. E. G. Hastings and B. W. Hammer.-- Experimental leucocytosis in the cow's udder. C. Hoffman. 1909. p.139-213.
7. Factors controlling the moisture content of cheese curds. J. L. Sammis, S. K. Suzuki and F. W. Laabs. 1910. 72 p. Pub. also as U.S. Dept. Agr., Bur. Anim. Indus. Bul. 122. For popular ed. see Wis. Agr. Expt. Sta. Circ. 20.
10. Some improved methods of dairy chemistry analysis: I, A volumetric method for the estimation of casein in cows' milk. E. B. Hart.-- II, The quantitative estimation of lactic acid in cheddar cheese. S. K. Suzuki and E. B. Hart.-- III, The relation of different acids to the precipitation of casein and the solubility of cheese curds in salt solutions. J. L. Sammis and E. B. Hart. 1910. p.107-125.
11. The production of volatile fatty acids and esters in cheddar cheese and their relation to the development of flavor. S. K. Suzuki, E. G. Hastings and E. B. Hart. 1910. p.127-154.
13. Studies of the protein requirements of dairy cows. F. W. Woll and G. C. Humphrey. 1910. p.175-216. For popular discussion see Bul. 200.
17. Physiological effect on growth and reproduction of rations balanced from restricted sources. E. B. Hart, E. V. McCollum, Harry Steenbock and G. C. Humphrey. 1911. p.131-205.
25. Studies on the factors concerned in the ripening of cheddar cheese. E. G. Hastings, A. C. Evans and E. B. Hart. 1912. p.1-54.
26. Studies in dairy production based on the records secured in the Wisconsin dairy cow competition, 1909-11. F. W. Woll. 1912. p.55-135. For less detailed account see Bulletin 226.
27. The manufacture of cheddar cheese from pasteurized milk. J. L. Sammis and A. T. Bruhn. 1912. p.137-248.
30. Calcium and phosphorus supply of farm feeds and their relation to the animal's requirements. E. B. Hart, Harry Steenbock and J. G. Fuller. 1914. p.1-28.
33. Comparative efficiency for growth of the nitrogen of alfalfa hay and corn grain. E. B. Hart, G. C. Humphrey and F. B. Morrison.-- The comparative efficiency for milk-production of the nitrogen of alfalfa hay and corn grain. E. B. Hart, G. E. Humphrey, J. J. Willaman and A. R. Lamb. 1914. p.87-119.

WISCONSIN AGRICULTURAL EXPERIMENT STATION.

Research Bulletins. (Cont.)

49. Influence of rations restricted to the oat plant on reproduction in cattle. E. B. Hart, Harry Steenbock and G. C. Humphrey. 1920. p.1-22.

Circulars of Information.

2. The propagation of pure culture starters for butter and cheese making. E. H. Farrington and E. C. Hastings. 1909. 4 p.
9. The Wisconsin dairy cow competition. F. W. Woll. 1909. 9 p.
10. Operating the casein test at cheese factories. E. B. Hart and W. H. Cooper. 1910. 4 p.
14. The determination of salt in butter at the creamery. J. L. Sammis. 1910. 7 p.
20. The control of moisture in cheese. J. L. Sammis, F. W. Laabs and S. K. Suzuki. 1911. 14 p. Popular abstract of Res.Bul.7.
27. How to use the Babcock test. J. L. Sammis. 1911. 26 p.
32. The "coming of age" of the Babcock test. H. L. Russell. 1912. p.3-18.
37. The feed unit system for determining the economy of production by dairy cows. F. W. Woll. 1912. 15 p.
41. The milk sediment test and its applications. A. C. Baer. 1912. 17 p.

WYOMING AGRICULTURAL EXPERIMENT STATION.

Laramie, Wyo.

State Farms Bulletin.

3. Comparison of corn ensilage and sunflower ensilage for dairy cows. W. L. Quayle. 1922. 11 p.

Part 2. PUBLICATIONS OF THE UNITED STATES DEPARTMENT OF AGRICULTURE,
1900 TO JUNE, 1923, INCLUSIVE.

UNITED STATES DEPARTMENT OF AGRICULTURE.
Washington, D. C.

Bulletins.

1. Medical milk commissions and certified milk. Ernest Kelly. 1913. 38 p.
49. The cost of raising a dairy cow. C. M. Bennett and M. O. Cooper. 1914.
23 p.
85. The cost of pasteurizing milk and cream. J. T. Bowen. 1914. 12 p.
98. The application of refrigeration to the handling of milk. J. T. Bowen.
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147. The effect of the cattle tick upon the milk production of dairy cows.
T. E. Woodward, W. F. Turner and Cooper Curtice. 1915. 22 p.
148. The use of Bacillus bulgaricus in starters for making Swiss or Emmental
cheese. C. F. Doane and E. E. Eldredge. 1915. 16 p.
177. The production and consumption of dairy products. Eugene Merritt. 1915.
19 p.
202. The alcohol test in relation to milk. S. H. Ayers and W. T. Johnson,
jr. 1915. 35 p.
240. Pasteurizing milk in bottles and bottling hot milk pasteurized in bulk.
S. H. Ayers and W. T. Johnson, jr. 1915. 27 p.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Bulletins. (Cont.)

303. A bacteriological study of retail ice cream. S. H. Ayers and W. T. Johnson, jr. 1915. 24 p.
319. Fermented milks. L. A. Rogers. 1916. 31 p. Rev. of U. S. Dept. Agr. B. A. I. Circ. 171.
342. The present status of the pasteurization of milk. S. H. Ayers. Rev., 1922. 27 p. 1st. ed., 1916.
356. Milk and cream contests. Ernest Kelly, L. B. Cook and J. A. Gamble. 1916. 23 p. For rev. see Dept. Circ. 53.
361. Comparison of the bacterial count of milk with the sediment or dirt test. H. C. Campbell. 1916. 7 p.
378. Fish meal: Its use as a stock and poultry food. F. C. Weber. 1916. 23 p.
413. Influence of age on the value of dairy cows and farm work horses. J. C. McDowell. 1916. 12 p.
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563. The determination of bacteria in ice cream. S. H. Ayers and W. T. Johnson, jr. 1917. 16 p.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Bulletins. (Cont.)

576. The manufacture of cottage cheese in creameries and milk plants. A. O. Dahlberg. 1917. 16 p.
585. A guide for formulating a milk ordinance. Prepared in the Dairy division of the Bureau of animal industry and in the Bureau of chemistry. 1917. 4 p.
603. A study of share-rented dairy farms in Green County, Wis., and Kane County, Ill. E. A. Boeger. 1918. 15 p.
608. Varieties of cheese: Descriptions and analyses. C. F. Doane and H. W. Lawson. 1918. 80 p. Rev. of U.S. Dept. Agr. Bur. Anim. Indus. Buls. 105, 146.
637. A method of calculating economical balanced rations. J. C. Rundles. 1918. 19 p.
639. The market milk business of Detroit, Mich., in 1915. C. E. Clement and G. P. Warber. 1918. 28 p.
642. The four essential factors in the production of milk of low bacterial content. S. H. Ayers, L. B. Cook and P. W. Clemmer. 1918. 63 p.
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744. Cooling milk and storing and shipping it at low temperatures. J. A. Gamble and J. T. Bowen. 1919. 28 p.
747. The economical use of fuel in milk plants and creameries. J. T. Bowen. 1919. 47 p.
763. Lessons on dairying for rural schools. Alvin Dille. 1919. 31 p.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Bulletins. (Cont.)

782. A study of the alkali-forming bacteria found in milk. S. H. Ayers, Philip Rupp and W. T. Johnson, jr. 1919. 39 p.
849. City milk plants: Construction and arrangement. Ernest Kelly and C. E. Clement. 1920. 35 p.
853. The organization and management of farms in northwestern Pennsylvania. An analysis of the business of 422 farms in the vicinity of Grove City, Pa. E. D. Strait and H. M. Dixon. 1920. 32 p.
858. Requirements and cost of producing market milk in northwestern Indiana. J. B. Bain and R. J. Posson. 1920. 31 p.
865. A classification of ledger accounts for creameries. G. O. Knapp, B. B. Mason and A. V. Swarthout. 1920. 40 p.
890. Milk-plant equipment. Ernest Kelly and C. E. Clement. 1920. 42 p.
919. Unit requirements for producing milk in western Washington. J. B. Bain and G. E. Braun. 1920. 19 p.
923. Unit requirements for producing market milk in Vermont. J. B. Bain, R. J. Posson and R. P. Hotis. 1921. 13 p.
940. The sporogenes test as an index of the contamination of milk. S. H. Ayers and P. W. Clemmer. 1921. 20 p.
944. The alcohol test as a means of determining quality of milk for condenseries. A. O. Dahlberg and H. S. Garner. 1921. 13 p.
945. The influence of calcium and phosphorus in the feed on the milk yield of dairy cows. E. B. Meigs and T. E. Woodward. Rev., 1922. 23 p. 1st ed., 1921.
955. Unit requirements for producing market milk in southeastern Louisiana. J. B. Bain, G. E. Braun and W. D. Wood. 1921. 15 p.
970. Manufacture of cows'-milk Roquefort cheese. K. J. Matheson. 1921. 23 p.
972. Unit requirements for producing market milk in eastern Nebraska. J. B. Bain, G. E. Braun and E. A. Gannon. 1921. 16 p.
973. Milk-plant operation. C. E. Clement. 1923. 45 p.
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UNITED STATES DEPARTMENT OF AGRICULTURE.

Bulletins. (Cont.)

- 1071. Influence of season of freshening on production and income from dairy cows. J. C. McDowell. 1922. 10 p.
- 1075. The whipping quality of cream. C. J. Babcock. 1922. 22 p.
- 1095. Producers' cooperative milk-distributing plants. O. B. Jesness, W. H. Barber, A. V. Swarthout and C. E. Clement. 1922. 44 p.
- 1097. The effect of silage on the flavor and odor of milk. J. A. Gamble and Ernest Kelly. 1922. 24 p.
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- 1161. Effect of composition on the palatability of ice cream. O. E. Williams and G. R. Campbell. 1923. 8 p.

Farmers' Bulletins.

- 131. Household tests for the detection of oleomargarine and renovated butter. G. E. Patrick, 1901. 11 p.
- 143. Conformation of beef and dairy cattle. A. M. Soule. 1902. 44 p.
- 151. Dairying in the south. S. M. Tracy. 1902. 48 p.
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- 201. The cream separator on western farms. E. H. Webster and C. E. Gray. 1904. 24 p.
- 241. Butter making on the farm. E. H. Webster. 1905. 31 p. Superseded by Farmers' Bul. 876.
- 280. A profitable tenant dairy farm. Lyman Carrier. 1907. 16 p.
- 346. The computation of rations for farm animals by the use of energy values. H. P. Armsby. 1909. 32 p.

UNITED STATES DEPARTMENT OF AGRICULTURE

Farmers' Bulletins. (Cont.)

348. Bacteria in milk. L. A. Rogers. 1909. 24 p. For rev. see Farmers' Bul.490.
349. The dairy industry in the South. B. H. Rawl, Duncan Stuart and G. M. Whitaker. 1909. 37 p.
350. The dehorning of cattle. R. W. Hickman. 1909. 14 p.
355. A successful poultry and dairy farm. W. J. Spillman. 1909. 40 p.
363. The use of milk as food. R. D. Milner. 1909. 44 p.
413. The care of milk and its use in the home. G. M. Whitaker, L. A. Rogers and C. L. Hunt. Reprint with additions, 1912. 20 p. 1st ed., 1910.
487. Cheese and its economical uses in the diet. C. F. Langworthy and C. L. Hunt. 1912. 40 p.
490. Bacteria in milk. L. A. Rogers. 1912. 23 p. Rev. of Yearbook Sep.444 and Farmers' Bul.348.
541. Farm butter making. J. R. Keithley. 1913. 28 p. Superseded by Farmers' Bul.876.
602. Production of clean milk. Ernest Kelly. Rev., 1919. 22 p. 1st ed., 1914.
608. Removal of garlic flavor from milk and cream. S. H. Ayers and W. T. Johnson, Jr. 1914. 4 p.
623. Ice houses and the use of ice on the dairy farm. J. T. Bowen and G. M. Lambert. 1915. 24 p. For rev. see Farmers' Bul.1078.
639. Eradication of the cattle tick necessary for profitable dairying. J. H. McClain. 1914. 4 p.
689. A plan for a small dairy house. Ernest Kelly and K. E. Parks. 1915. 4 p. For rev. see Farmers' Bul.1214.
743. The feeding of dairy cows. Helmer Rabild, H. P. Davis and W. K. Brainerd. Rev., 1923. 27 p. 1st ed., 1916.
748. A simple steam sterilizer for farm dairy utensils. S. H. Ayers and G. B. Taylor. Rev., 1919. 16 p. 1st ed., 1916.
777. Feeding and management of dairy calves and young dairy stock. W. K. Brainerd and H. P. Davis. 1917. 20 p.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Farmers' Bulletins. (Cont.)

850. How to make cottage cheese on the farm. K. J. Matheson and F. R. Cammack. Rev., 1920. 16 p. 1st ed., 1917.
873. Utilization of farm wastes in feeding live stock. S. H. Ray. 1917. 12 p.
876. Making butter on the farm. William White. Rev., 1921. 24 p. 1st ed., 1917. Supersedes Farmers' Buls. 241, 541.
893. Breeds of dairy cattle. H. P. Davis. Rev., 1920. 35 p. 1st ed., 1917.
920. Milk goats. E. L. Shaw. 1918. 36 p.
930. Marketing butter and cheese by parcel post. L. B. Flohr and R. C. Potts. 1918. 12 p.
960. Neufchatel and cream cheese: farm manufacture and use. K. J. Matheson and F. R. Cammack. Rev., 1922. 35 p. 1st ed., 1918.
976. Cooling milk & cream on the farm. J. A. Gamble. Rev., 1922. 16 p. 1st ed., 1918.
993. Cooperative bull associations. J. G. Winkjer. Rev., 1920. 34 p. 1st ed., 1918. Supersedes Yearbook Sep. 718.
1019. Straining milk. Ernest Kelly and J. A. Gamble. 1919. 16 p.
1078. Harvesting and storing ice on the farm. J. T. Bowen. Rev., 1922. 31 p. 1st ed., 1920. Rev. of Farmers' Bul. 623.
1167. Essentials of animal breeding. G. M. Rommel. Rev., 1923. 38 p. 1st ed., 1920.
1179. Feeding cottonseed products to livestock. E. W. Sheets and E. H. Thompson. Rev., 1921. 19 p. 1st ed., 1920.
1191. Making American cheese on the farm. C. M. Gere. Rev., 1922. 19 p. 1st ed., 1921.
1207. Milk and its uses in the home. Prepared in the Office of home economics, with the cooperation of the Dairy division, Bureau of animal industry. 1921. 34 p.
1214. Farm dairy houses. Ernest Kelly and K. E. Parks. 1921. 14 p. Rev. of Bur. Anim. Indus. Circ. 195 and Farmers' Bul. 689.
1272. Renting dairy farms. H. A. Turner. 1922. 24 p.
1315. Cleaning milking machines. L. H. Burgwald. 1923. 16 p.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Department Circulars.

1. Suggestions for the marketing of cottage cheese. D. L. James. 1919. 14 p.
7. Trend of the dairy-cattle industry in the United States and other countries. Simple charts with interpretations. T. R. Pirtle. 1919. 19 p.
26. Delicious products of the dairy. J. C. McDowell. Rev., 1919. 12 p. 1st ed., 1918.
53. Milk and cream contests. Ernest Kelly and G. B. Taylor. 1919. 24 p. Rev. of Dept. Bul. 356.
67. How teachers may use Farmers' Bulletin 602, Clean milk: production and handling. Alvin Dille. 1920. 6 p.
69. How teachers may use Farmers' Bulletin 376, Making butter on the farm. E. H. Shinn. 1919. 4 p.
70. Trend of the butter industry in the United States and other countries. Simple charts with interpretations. T. R. Pirtle. 1919. 24 p.
71. Trend of the cheese industry in the United States and other countries. Simple charts with interpretations. T. R. Pirtle. 1919. 24 p.
72. Good drinks made of milk. Kickless; but full of punch. 1919. 8 p.
129. Milk for the family. Rev., 1922. 4 p. 1st ed., 1920.
139. The government exhibit at the 1920 National dairy show. 1920. 17 p.
233. Motion pictures of the U. S. Department of Agriculture [including films on dairying]. 1922. 13 p.
236. Defects in the quality of butter. C. W. Fryhofer. 1922. 14 p.
250. Educational milk-for-health campaigns. J. M. Hoover. 1923. 36 p.

Office of Secretary Circulars.

21. Rules and regulations for the enforcement of the federal food and drugs act. 8th rev., 1922. 27 p. 1st issue, 1906.
66. Suggestions for the manufacture and marketing of creamery butter in the South. R. C. Potts and William White. 1916. 12 p.
85. The agricultural situation for 1918: a series of statements prepared under the direction of the secretary of agriculture. pt. 2. Dairying. 1918. 24 p.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Office of Secretary Circulars. (Cont.)

- 95. Errors in the weight of print butter; their causes and prevention.
H. Runkel and H. M. Roeser. 1918. 15 p.
- 109. Cottage cheese dishes. Economical, wholesome, delicious. Rev., 1919.
20 p. 1st ed., 1918.
- 120. Rules and regulations of the secretary of agriculture under the food
products inspection law of October 1, 1918. 1918. 8 p.
- 136. Standards of purity for food products. 1919. 22 p. Supersedes Off.
Sec.Circs.10, 13, 17, and 19, 1903-1906.
- 157. Handbook for use in the inspection of whole-milk American cheese under
the Food products inspection law. C. W. Fryhofer and R. C. Potts.
1923. 16 p.

Yearbook Separates.

- 199. Dairy products at the Paris exposition of 1900. H. E. Alvord. 1901.
p.599-624.
- 260. Dairying at home and abroad. H. E. Alvord. 1903. p.145-154.
- 323. A model farm. W. J. Spillman. 1904. p.363-370.
- 390. Renovated butter: Its origin and history. Levi Wells. 1906. p.393-
398.
- 432. Opportunities for dairying. W. H. Dexter. 1907. p.405-428.
- 444. Bacteria in milk. L. A. Rogers. 1908. p.179-196. For rev. see
Farmers' Bul.490.
- 536. The grading of cream. B. D. White. 1911. p.275-280.
- 543. Cheese and other substitutes for meat in the diet. C. F. Langworthy.
1911. p.359-370.
- 595. Condensed and desiccated milk. Levi Wells. 1913. p.335-344.
- 606. Dairying and its relation to agriculture in semiarid sections. A. K.
Risser. 1913. p.463-470.
- 699. A federated cooperative cheese manufacturing and marketing association.
Hector Macpherson and W. H. Kerr. 1917. p.145-157.
- 707. An experiment in community dairying. R. R. Welch. 1917. p.209-216.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Yearbook Separates. (Cont.)

718. Cooperative bull associations. J. G. Winkjer. 1917. p.311-319.
Superseded by Farmers' Bul.993.
737. Cheesemaking brings prosperity to farmers of southern mountains.
C. F. Doane and A. J. Reed. 1918. p.147-152.
743. Butterfat and income. J. C. McDowell. 1918. p.357-362.
744. How the dairy cow brought prosperity in the wake of the boll weevil.
L. A. Higgins. 1918. p.303-310.
765. How dairying built up a community. J. C. McDowell. 1919. p.153-168.
787. The rediscovery of an old dish [cottage cheese]. H. P. Davis. 1919.
p.269-276.
853. Cows that make the income climb. J. C. McDowell. 1921. p.401-412.
857. Milk for midshipmen. Ernest Kelly. 1921. p.463-470.
879. The dairy industry. C. W. Larson [and others] 1923. p.281-394.

Syllabi. (To accompany lantern slides which are lent by the United States Department of Agriculture. Syllabi not separately distributed.)

18. Illustrated lecture on the production of clean milk. Ernest Kelly.
1915. 18 p.
19. Illustrated lecture on how to make good farm butter. J. H. McClain.
1916. 10 p.
30. Illustrated lecture on cow testing and dairy records. Duncan
Stuart. 1917. 10 p.

Journal of Agricultural Research.

- v.I,no.6. p.491-511. The origin of some of the streptococci found in
milk. L. A. Rogers and A. O. Dahlberg. 1914.
- v.II,no.1. p.1-14. Flavor of Roquefort cheese. J. N. Currie. 1914.
- v.II,no.3. p.167-192. Bacteria concerned in the production of the
characteristic flavor in cheese of the cheddar type.
A. C. Evans, E. G. Hastings and E. B. Hart. 1914.
- v.II,no.3. p.193-216. Relation of the action of certain bacteria to the
ripening of cheese of the cheddar type. E. B. Hart, E. G.
Hastings, E. M. Flint and A. C. Evans. 1914.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Journal of Agricultural Research. (Cont.)

- v.II,no.4. p.321-330. Ability of streptococci to survive pasteurization. S. H. Ayers and W. T. Johnson, jr. 1914.
- v.II,no.6. p.429-434. Composition of Roquefort-cheese fat. J. N. Currie. 1914.
- v.III,no.3. p.251-268. Studies in the expansion of milk and cream. H. W. Bearce. 1914.
- v.III,no.4. p.301-310. Moldiness in butter. Charles Thom and R. H. Shaw. 1915.
- v.III,no.5. p.401-410. Ability of colon bacilli to survive pasteurization. S. H. Ayers and W. T. Johnson, jr. 1915.
- v.III,no.6. p.435-491. Net energy values of feeding stuffs for cattle. H. P. Armsby and J. A. Fries. 1915.
- v.IV,no.5. p.405-450. Prickly-pears as a feed for dairy cows. T. E. Woodward, W. F. Turner and David Griffiths. 1915.
- v.V,no.13. p.561-568. Diuresis and milk flow. Harry Steenbock. 1915.
- v.V,no.19. p.871-875. Agglutination test as a means of studying the presence of Bacterium abortus in milk. L. H. Cooledge. 1916.
- v.VI,no.3. p.101-113. Determination of stearic acid in butter fat. E. B. Holland, J. C. Reed and J. P. Buckley, jr. 1916.
- v.VI,no.4. p.141-147. A sex-limited color in Ayrshire cattle. E. N. Wentworth. 1916.
- v.VI,no.4. p.153-166. Effect of pasteurization on mold spores. Charles Thom and S. H. Ayers. 1916.
- v.VI,no.4. p.167-178. Effect of water in the ration on the composition of milk. W. F. Turner [and others]. 1916.
- v.VI,no.24. p.927-952. Progressive oxidation of cold-storage butter. D. C. Dyer. 1916.
- v.VII,no.9. p.379-387. Energy values of red-clover hay and maize meal. H. P. Armsby, J. A. Fries and W. W. Braman. 1916.
- v.X,no.4. p.175-198. Physiological effect on growth and reproduction of rations balanced from restricted sources. E. B. Hart [and others]. 1917.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Journal of Agricultural Research. (Cont.)

- v.X,no.12. p.599-613. Energy values of hominy feed and maize meal for cattle. H. P. Armsby and J. A. Fries. 1917.
- v.XI,no.9. p.437-450. Enzyms of milk and butter. R. W. Thatcher and A. C. Dahlberg. 1917.
- v.XI,no.10. p.451-472. Influence of the degree of fatness of cattle upon their utilization of feed. H. P. Armsby and J. A. Fries. 1917.
- v.XI,no.12. p.645-658. Influence of the age of the cow on the composition and properties of milk and milk fat. C. H. Eckles and L. S. Palmer. 1917.
- v.XII,no.9. p.575-578. Digestion of starch by the young calf. R. H. Shaw, T. E. Woodward and R. P. Norton. 1918.
- v.XII,no.11. p.719-732. Determination of fatty acids in butter fat: I. E. B. Holland and J. B. Buckley, jr. 1918.
- v.XIII,no.1. p.43-57. Basal katabolism of cattle and other species. H. P. Armsby, J. A. Fries and W. W. Braman. 1918.
- v.XIII,no.4. p.225-233. Bacterial flora of Roquefort cheese. A. C. Evans. 1918.
- v.XIII,no.4. p.235-252. A study of the streptococci concerned in cheese ripening. A. C. Evans. 1918.
- v.XIV,no.2. p.67-96. Correlation between the percentage of fat in cow's milk and the yield. Elmer Roberts. 1918.
- v.XV,no.1. p.1-58. Studies in inheritance of certain characters of crosses between dairy and beef breeds of cattle. J. W. Gowen. 1918. For abstract see Me.Agr.Expt.Sta.Bul.272.
- v.XV,no.5. p.269-286. Net energy values of alfalfa hay and of starch. H. P. Armsby and J. A. Fries. 1918.
- v.XVI,no.3. p.79-102. Variations and mode of secretion of milk solids. J. W. Gowen. 1919.
- v.XVII,no.6. p.285-322. Variation of Ayrshire cows in the quantity and fat content of their milk. Raymond Pearl and J. R. Miner. 1919. For abstract see Me.Agr.Expt.Sta.Bul.279.
- v.XIX,no.3. p.123-130. Effect of drugs on milk and fat production. F. A. Hays and M. G. Thomas. 1920.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Journal of Agricultural Research. (Cont.)

- v.XX,no.11. p.831-838. Sunflower silage digestion experiment with cattle and sheep. R. E. Neidig, R. S. Snyder and C. W. Hickman. 1921.
- v.XXI,no.1. p.1-28. Observations on the body temperature of dry cows. Max Kriss. 1921.
- v.XXI,no.10. p.791-796. Sandy crystals in ice cream: their separation and identification. H. F. Zoller and O. E. Williams. 1921.
- v.XXII,no.2. p.93-100. Microscopic study of bacteria in cheese. G. J. Hucker. 1921.

Bureau of Animal Industry Bulletins.

24. Notes upon dairying in California and the export of California butter to the Orient. R. A. Pearson. 1900. 29 p.
26. National and state dairy laws. Comp. and abstracted by R. A. Pearson. 1900. 110 p.
44. Infectiveness of milk of cows which have reacted to the tuberculin test. J. R. Mohler. 1903. 93 p.
46. The milk supply of two hundred cities and towns. H. E. Alvord and R. A. Pearson. 1903. 210 p.
49. The cold curing of cheese. Report upon experiments conducted under the auspices of the U. S. Dept. of agriculture, Bureau of animal industry Dairy division, in cooperation with the Wisconsin agricultural experiment station and the New York agricultural experiment station. S. M. Babcock [and others].. 1903. 38 p.
51. The available energy of timothy hay. Investigations with the respiration calorimeter in cooperation with the Pennsylvania state college agricultural experiment station. H. P. Armsby and J. A. Fries. 1903. 77 p.
55. Statistics of the dairy. Compiled from the United States census for 1900, and from other reliable sources, with explanatory notes, by H. E. Alvord. 1903. 88 p.
57. Studies upon the keeping quality of butter. I, Canned butter. L. A. Rogers. 1904. 24 p.
58. The fat testing of cream by the Babcock method. E. H. Webster. 1904. 29 p.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Bureau of Animal Industry Bulletins. (Cont.)

59. The farm separator: its relation to the creamery and to the creamery patron. E. H. Webster. 1904. 47 p.
62. The relation of bacteria to the flavors of cheddar cheese. L. A. Rogers. 1904. 38 p.
70. The milk supply of twenty-nine southern cities. C. F. Doane. 1905. 40 p.
71. The Camembert type of soft cheese in the United States. H. W. Conn [and others]. 1905. 29 p. Also issued as Conn.; Storrs, Agr. Expt. Sta. Bul. 35.
73. The bacteria of pasteurized and unpasteurized milk under laboratory conditions. L. A. Rogers. 1905. 32 p.
74. Energy values of red clover hay and maize meal. Investigations with the respiration calorimeter, in cooperation with the Pennsylvania state college agricultural experiment station. H. P. Armsby and J. A. Fries. 1905. 64 p.
75. Records of dairy cows in the United States. C. B. Lane. 1905. 184 p. Bur. Anim. Indus. Circ. 103 is largely an abstract of Bur. Anim. Indus. Bul. 75.
77. Cattle, sheep and hog feeding in Europe. W. J. Kennedy. 1905. 98 p.
81. The milk supply of Boston, New York, and Philadelphia. G. M. Whitaker. 1905. 62 p.
82. Fungi in cheese ripening: Camembert and Roquefort. Charles Thom. 1906. 39 p.
83. The cold storage of cheese. (Experiments of 1903-4.) C. B. Lane. 1906. 26 p.
84. Investigations in the manufacture and storage of butter. I, The keeping qualities of butter made under different conditions and stored at different temperatures. C. E. Gray.-- With remarks on the scoring of the butter by G. L. McKay. 1906. 24 p.
85. Investigations in the manufacture and curing of cheese. VI, The cold curing of American cheese, with a digest of previous work on the subject. C. F. Doane. 1906. 68 p.
87. Market milk investigations. II, The milk and cream exhibit at the National dairy show, 1906. C. B. Lane. 1906. 21 p.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Bureau of Animal Industry Bulletins. (Cont.)

89. Investigations in the manufacture and storage of butter. II, Preventing molds in butter tubs. L. A. Rogers. 1906. 13 p.
91. Feeding prickly pear to stock in Texas. David Griffiths. 1906. 23 p.
92. The milking machine as a factor in dairying (a preliminary report) I, Practical studies of a milking machine. C. B. Lane.-- II, Bacteriological studies of a milking machine. W. A. Stocking, Jr. 1907. 55 p.
94. Investigations in the use of the bomb calorimeter in cooperation with the Pennsylvania state college agricultural experiment station. J. A. Fries. 1907. 39 p.
98. Investigations in the manufacture and curing of cheese. VII, Directions for making the Camembert type of cheese. T. W. Issajeff. 1907. 21 p. Also issued as Conn., Storrs, Agr. Expt. Sta. Bul. 46.)
101. The available energy of red clover hay. Investigations with the respiration calorimeter. H. P. Armsby and J. A. Fries. 1908. 61 p.
104. Medical milk commissions and the production of certified milk in the United States. C. B. Lane. 1908. 43 p.
105. Varieties of cheese: descriptions and analyses. C. F. Doane and H. W. Lawson. 1908. 72 p. Rev. by U. S. Dept. Agr. Bul. 608.
106. Experiments on the digestibility of prickly pear by cattle. R. F. Hare. 1908. 38 p.
109. Proteolytic changes in the ripening of Camembert cheese. A. W. Dox. 1908. 24 p.
111. A chemical and physical study of the large and small fat globules in cows' milk. R. H. Shaw and C. H. Eckles. 1909. 16 p.
114. The influence of acidity of cream on the flavor of butter. L. A. Rogers and C. E. Gray. 1909. 22 p.
115. Camembert cheese problems in the United States. Charles Thom. 1909. 54 p. Also issued as Conn., Storrs, Agr. Expt. Sta. Bul. 58.
117. Leucocytes in milk: methods of determination and the effect of heat upon their number. H. C. Campbell. (In cooperation with the Pennsylvania state livestock sanitary board.) 1909. 19 p.
118. Cultural studies of species of Penicillium. Charles Thom. 1910. 109 p.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Bureau of Animal Industry Bulletins. (Cont.)

120. The intracellular enzymes of Penicillium and Aspergillus, with special reference to those of Penicillium camemberti. A. W. Dox. 1910. 70 p.
122. Factors controlling the moisture content of cheese curds. J. L. Sammis and S. K. Suzuki and F. W. Laabs. 1910. 61 p. Pub. also as Wis. Agr. Expt. Sta. Res. Bul. 7.
123. The influence of lactic acid on the quality of cheese of the Cheddar type. C. F. Doane. 1910. 20 p.
124. Methods and standards in bomb calorimetry. Investigations in co-operation with the Institute of animal nutrition of the Pennsylvania state college. J. A. Fries. 1910. 32 p.
126. The bacteriology of commercially pasteurized and raw market milk. S. H. Ayers and W. T. Johnson, jr. 1910. 98 p.
128. The influence of type and of age upon the utilization of feed by cattle. Investigations in cooperation with the Institute of animal nutrition of the Pennsylvania state college. H. P. Armsby and J. A. Fries. 1911. 245 p.
129. Cattle breeders' associations in Denmark. Frederik Rasmussen. 1911. 40 p.
134. The estimation of total solids in milk by the use of formulas. R. H. Shaw and C. H. Eckles. 1911. 31 p.
138. The milk supply of Chicago and Washington. G. M. Whitaker. 1911. 40 p.
139. The nutritive value of the nonprotein of feeding stuffs. H. P. Armsby. 1911. 49 p.
143. The maintenance rations of farm animals. H. P. Armsby. 1912. 110 p.
146. Varieties of cheese: descriptions and analyses. C. F. Doane and H. W. Lawson. 1911. 78 p. Rev. by U. S. Dept. Agr. Bul. 608.
148. The manufacture of butter for storage. L. A. Rogers, S. C. Thompson and J. R. Keithley. 1912. 27 p.
149. The normal composition of American creamery butter. S. C. Thompson, R. H. Shaw and R. P. Norton. 1912. 31 p.
150. The bacteriology of Cheddar cheese. E. G. Hastings, A. C. Evans and E. B. Hart. 1912. 52 p.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Bureau of Animal Industry Bulletins. (Cont.)

- 151. A study of the gases of Emmental cheese. W. M. Clark. 1912. 32 p.
- 154. Methods of classifying the lactic-acid bacteria. L. A. Rogers and B. J. Davis. 1912. 30 p.
- 155. The influence of the stage of lactation on the composition and properties of milk. C. H. Eckles and R. H. Shaw. 1913. 83 p.
- 156. The influence of breed and individuality on the composition and properties of milk. C. H. Eckles and R. H. Shaw. 1913. 27 p.
- 157. Variations in the composition and properties of milk from the individual cow. C. H. Eckles and R. H. Shaw. 1913. 27 p.
- 161. A study of the bacteria which survive pasteurization. S. H. Ayers and W. T. Johnson, Jr. 1913. 66 p.
- 162. Factors influencing the change in flavor in storage butter. L. A. Rogers, W. N. Berg, C. R. Pottleiger and B. J. Davis. 1913. 69 p.
- 164. Dairy herd records. (From 1899 to 1908, inclusive.) A digest prepared by the Dairy division from data collected by W. D. Heard. 1913. 57 p.
- 165. The manufacture of cheese of the cheddar type from pasteurized milk. J. L. Sammis and A. T. Bruhn. 1913. 95 p.
- 166. Chemical changes produced in cows' milk by pasteurization. Philip Rupp. 1913. 15 p.

Bureau of Animal Industry Circulars.

- 29. Officials, associations, and educational institutions connected with the dairy interests of the United States for the year 1900. 1900. 10 p.
- 33. Officials, associations, and educational institutions connected with the dairy interests of the United States for the year 1901. 1901. 8 p.
- 36. Officials, associations, and educational institutions connected with the dairy interests of the United States for the year 1902. 1902. 8 p.
- 39. The water content of creamery butter. H. E. Alvord. 1903. 4 p.
- 40. Officials, associations, and educational institutions connected with the dairy interests of the United States for the year 1903. 1903. 11 p.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Bureau of Animal Industry Circulars. (Cont.)

- 44. Officials, associations, and educational institutions connected with the dairy interests of the United States for the year 1904. 1904. 12 p.
- 46. The international dairy federation and international dairy congresses. 1904. 14 p.
- 48. Scales of points for judging cattle of dairy breeds. H. E. Alvord. 1904. 14 p.
- 49. United States and state standards for dairy products, 1904. 1904. 2 p. For latest rev. see Bur.Anim.Indus.[Pub.] A-8.
- 56. Facts concerning the history, commerce and manufacture of butter. Harry Hayward. 1904. p.177-200.
- 74. Legal standard for dairy products. Rev., 1909. 2 p. For latest rev. see Bur.Anim.Indus.[Pub.] A-8.
- 75. Feeding fat into milk; or The effect of the food upon the quality and quantity of milk produced. Recent experimental inquiry upon milk secretion. C. D. Woods.-- The physiology of milk secretion. A. W. Bitting. 1905. 43 p.
- 76. Dairy methods in Great Britain, Ireland, Denmark, Holland, Channel Islands, France, Austria-Hungary, Germany, and Switzerland. W. J. Kennedy. 1905. p.40-70.
- 80. Officials, associations, and educational institutions connected with the dairy interests of the United States for the year 1905. 1905. 12 p.
- 90. Suggestions for construction of a modern dairy barn. 1906. 6 p.
- 99. Officials, associations, and educational institutions connected with the dairy interests of the United States for the year 1906. 1906. 14 p.
- 100. A rapid method for the determination of water in butter. C. E. Gray. 1906. 6 p.
- 103. Records of dairy cows: their value and importance in economic milk production. C. B. Lane. 1907. 38 p. Abstract of Bur.Anim.Indus. Bul.75.
- 111. Sanitary relations of the milk supply. 1907. 7 p.
- 114. Sanitary milk production. 1907. 38 p.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Bureau of Animal Industry Circulars. (Cont.)

115. Officials, associations, commissions, and educational institutions connected with the dairy interests of the United States for the year 1907. 1907. 22 p.
117. A city milk and cream contest as a practical method of improving the milk supply. C. B. Lane and I. C. Weld. 1907. 23 p.
126. A simple method of keeping creamery records. B. D. White. 1903. 12 p.
127. Tubercle bacilli in butter: their occurrence, vitality and significance. E. C. Schroeder and W. E. Cotton. 1908. 22 p.
130. Paraffining butter tubs. L. A. Rogers. 1908. 6 p.
131. Designs for dairy buildings. E. H. Webster. 1908. 25 p.
135. Officials, organizations, and educational institutions connected with the dairy interests (1908). 1908. 31 p.
139. The score-card system of dairy inspection. C. B. Lane and G. M. Whitaker. 1909. 32 p. Rev. by Bur. Anim. Indus. Circ. 199.
142. Some important factors in the production of sanitary milk. E. H. Webster. 1909. p.161-178.
143. Milk and its products as carriers of tuberculosis infection. E. C. Schroeder. 1909. p.183-199.
145. The care and testing of Camembert cheese. Charles Thom. 1909. p.339-343.
146. Fishy flavor in butter. L. A. Rogers. 1909. 20 p.
151. Competitive exhibitions of milk and cream, with report of an exhibition held at Pittsburg, Pa., in cooperation with the Pittsburg chamber of commerce. C. B. Lane and I. C. Weld. 1909. 36 p.
152. Directions for the home pasteurization of milk. L. A. Rogers. 1909. 2 p.
153. The dissemination of disease by dairy products, and methods for prevention. G. L. Magruder [and others]. 1910. 57 p.
158. Improved methods for the production of market milk by ordinary dairies. C. B. Lane and K. E. Parks. 1910. 12 p.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Bureau of Animal Industry Circulars. (Cont.)

- 161. Whey butter. C. F. Doane. 1910. 7 p.
- 162. Officials, organizations, and educational institutions connected with the dairy interests (1910). 1910. 31 p.
- 166. The digestibility of cheese. C. F. Doane, in cooperation with the Office of experiment stations. 1911. 22 p.
- 170. The extra cost of producing clean milk. G. M. Whitaker. 1911. p.119-131.
- 171. Fermented milks. L. A. Rogers. 1911. p.133-161. Rev. by U. S. Dept. Agr. Bul. 319.
- 179. Cow-testing associations. Helmer Rabild. 1911. 24 p.
- 181. Methods and results of paraffining cheese. C. F. Doane. 1911. 16 p.
- 184. The pasteurization of milk. S. H. Ayers. 1912. 44 p.
- 183. Increasing creamery profits by handling special products and utilizing by-products. S. C. Thompson. 1912. p.297-306.
- 189. The temperature of pasteurization for butter making. L. A. Rogers, W. N. Berg and B. J. Davis. 1912. p.307-326.
- 195. A plan for a small dairy house. Ernest Kelly and K. E. Parks. 1912. 5 p. For latest rev. see Farmers' Bul. 1214.
- 197. Directions for the home pasteurization of milk. L. A. Rogers. 1912. 3 p.
- 198. The bacterium of contagious abortion of cattle demonstrated to occur in milk. A. D. Melvin. 1912. 3 p.
- 199. The score-card system of dairy inspection. G. M. Whitaker. 1912. 32 p. Rev. of Bur. Anim. Indus. Circ. 139.
- 200. A simple butter color standard. S. H. Ayers. 1912. 3 p.
- 202. A new method for determining fat and salt in butter, especially adapted for use in creameries. R. H. Shaw. 1912. 8 p.
- 204. Officials, organizations, and educational institutions connected with the dairy interests (1912). 1912. 26 p.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Bureau of Animal Industry Circulars. (Cont.)

205. Milk and cream contests. How to conduct them, and how to prepare samples for competition. Ernest Kelly. 1912. 23 p.
209. The utilization of exhaust steam for heating boiler feed water and wash water in milk plants, creameries, and dairies. J. T. Bowen. 1913. 13 p.
210. A comparison of the acid test and the rennet test for determining the condition of milk for the cheddar type of cheese. E. G. Hastings and A. C. Evans. 1913. 6 p.
217. The control of bulk milk in stores. Ernest Kelly. 1913. p.237-246.
218. Legal standards for dairy products. 1913. 2 p. For latest rev. see Bur.Anim.Indus.[Pub.] A-8.

Bureau of Animal Industry Miscellaneous Publications (Numbered).

- A-8. Legal standards for dairy products, revised to July 1, 1915. Dairy Division. 1916. 3 p. Supersedes Bur.Anim.Indus.Circs.49,74,218.
- A-12. Chemical testing of milk and cream. R. H. Shaw. 1917. 42 p.
- A.I.17. Simple directions for making cottage cheese on the farm. Dairy Division. 1917. 3 p.
- A.I.18. Ways to use cottage cheese. Dairy Division. 1917. 2 p.
- A.I.19. The manufacture of cottage cheese in creameries and milk plants. Dairy Division. 1917. 4 p.
- A.I.21. The food value of American cheese. Dairy Division. 1917. 2 p.
- A.I.22. Buttermilk a food drink. Dairy Division. 1917. 2 p.
- A.I.24. Cottage cheese- an inexpensive meat substitute. Dairy Division. 1917. 1 p.
- A.I.25. Feed more legumes- less grain- to dairy cows. Dairy Division. 1917. 1 p.
- A.I.27. Milk as a food. Dairy Division. 1917. 2 p.
- A.I.31. Skim milk for human food. Dairy Division. 1918. 2 p.
- A.I.37. A handbook of dairy statistics. T. R. Pirtle. 1922. 72 p.
- D.D.581. Turn cold into gold. Dairy Division. 1918. Folder.

UNITED STATES DEPARTMENT OF AGRICULTURE.

Bureau of Animal Industry Miscellaneous Publications, ^{numbered.} / (Cont.)

D.D.608. Harvest a crop in midwinter, [ice]. Dairy Division. 1920.
Folder.

D.D.624. Clean milk is easily produced by following a few simple rules.
Dairy Division. 1922. Folder.

D.D.E.10. Your future herd. Dairy Division. 1921. Folder.

Bureau of Animal Industry Miscellaneous Publications (Unnumbered).

Advantages of dairying in the South. Dairy Division. 1914. 4 p.

Buttermilk and artificial buttermilk. Dairy Division. 1917. 1 p.

Conveniences for handling the farm cow and her products. Dairy Division.
1914. 6 p.

Feeding the farm cow in the South. Dairy Division. 1914. 4 p.

How to use skim milk. Dairy Division. 1917. 1 p.

Making farm butter in the South. Dairy Division. 1914. 4 p.

Marketing butter and cream in the South. Dairy Division. 1914. 3 p.

Milk is a food. Dairy Division. 1918. 1 p.

The production and care of milk and cream. Dairy Division. 1914. 4 p.

Shall southern farmers build creameries? Dairy Division. 1914. 3 p.

Ten suggestions for milk consumers. Dairy Division. 1917. 1 p.

Bureau of Markets, Service and Regulatory Announcement.

51. The inspection of butter under the food products inspection law.
Bureau of Markets. 1919. 23 p.

Part 3. BOOKS PUBLISHED IN THE UNITED STATES, ISSUED OR REVISED
SINCE 1908.

BOOKS.

American Public Health Association. Pasteurization of milk; report of Committee on milk supply of the Sanitary engineering section, American public health association. Boston, American public health association, 1920. 32 p.

American Public Health Association. Standard methods of milk analysis of the American public health association and the Association of official agricultural chemists. 4th ed. New York, American public health association, 1923. 40 p.

Armsby, H. P. Animal nutrition. Investigations at the Institute of animal nutrition of the Pennsylvania state college with the cooperation of the Bureau of animal industry of the United States Department of Agriculture. Collected papers, 1912-1923. H. P. Armsby, J. A. Fries [and others]. State college, Institute of animal nutrition, Pennsylvania state college, 1922. 751 p. Bulletins and reprints bound together with new title page.

Armsby, H. P. The nutrition of farm animals. New York, The Macmillan co., 1917. 743 p.

Armsby, H. P. The principles of animal nutrition. 3d ed., rev. New York, John Wiley & sons, inc., 1908. 614 p.

Burch, D. S. Dairy farming. What cows to buy, how to house, feed, and care for them and make dairying pay. Philadelphia, The Penn publishing co., 1912. 208 p.

BOOKS. (Cont.)

- Davenport, Eugene. Domesticated animals and plants; a brief treatise upon the origin and development of domesticated races, with special reference to the methods of improvement. Boston, Ginn & co., 1910. 321 p.
- Eckles, C. H. Dairy cattle and milk production. New York, The Macmillan co., 1911. 342 p.
- Eckles, C. H. Dairy farming, by C. H. Eckles and G. F. Warren. New York, The Macmillan co., 1916. 309 p.
- Erdman, H. E. The marketing of whole milk. New York, The Macmillan co., 1921. 333 p.
- Erf, Oscar. Dairy fundamentals, by Oscar Erf and O. C. Cunningham. 2d ed. Columbus, O., The authors, 1913. 96 p.
- Farrington, E. H. Testing milk and its products; a manual for dairy students, creamery and cheese factory operators, food chemists, and dairy farmers, by E. H. Farrington and F. W. Woll. 24th rev. and enl. ed. Madison, Wis., Mendota book co., 1918. 297 p.
- Fisk, W. W. The book of ice-cream. New York, The Macmillan co., 1923. 302 p.
- Frandsen, J. H. The manufacture of ice cream and ices, by J. H. Frandsen and E. A. Markham. New York, Orange Judd publishing co., 1916. 315 p.
- Frederiksen, J. D. The story of milk. New York, The Macmillan co., 1919. 138 p.
- Gardner, F. D. Live stock and dairy farming. A non-technical manual for the successful breeding, care and management of farm animals, the dairy herd, and the essentials of dairy production, by F. D. Gardner [and others]. Philadelphia, John C. Winston co., 1918. 196 p.
- Guthrie, E. S. The book of butter; a text on the nature, manufacture and marketing of the product. New York, The Macmillan co., 1918. 270 p.
- Hatch, K. L. Profitable dairying, by K. L. Hatch and G. H. Benkendorf. Chicago, Row, Peterson & co., 1918. 182 p.
- Heinemann, P. G. Milk. Philadelphia, W. B. Saunders co., 1919. 634 p.
- Heller, B., & co. Heller's guide for ice-cream makers. 6th ed. Chicago, B. Heller & co., 1918. 154 p.
- Heller, L. U. Heller butterfat tables. Chicago, C. W. Braithwaite co., printers, 1914. 70 p. folio.
- Henry, W. A. Feeds and feeding, earlier editions by W. A. Henry, rewritten by F. B. Morrison. 18th ed. Madison, Wis., The Henry-Morrison co., 1923. 770 p.

BOOKS. (Cont.)

- Hunziker, O. F. The butter industry. LaGrange, Ill., The author, 1920.
710 p.
- Hunziker, O. F. Condensed milk and milk powder. 3d ed. rev. and enl. LaGrange, Ill., The author, 1920. 424 p.
- Jordan, W. H. The feeding of animals. Rev. ed. New York, The Macmillan co., 1917. 473 p.
- Kelly, Ernest. Market milk, by Ernest Kelly and C. E. Clement. New York, John Wiley & sons, inc., 1923. 445 p.
- Kilbourne, C. H. The pasteurization of milk from the practical viewpoint. New York, John Wiley & sons, inc., 1916. 248 p.
- King, C. L. The price of milk. Philadelphia, John C. Winston co., 1920. 336 p.
- Klein, L. A. Principles and practice of milk hygiene. Philadelphia, J. B. Lippincott co., 1917. 329 p.
- Lane, C. B. The business of dairying; how to conduct dairy farming for the largest profit. New York, Orange Judd publishing co., 1909. 234 p.
- Larsen, Christian. Dairy technology; a treatise on the city milk supply, milk as a food, ice cream making, by-products of the creamery and cheesery, fermented milks, condensed and evaporated milks, milk powder, renovated butter, and oleomargarine, by C. Larsen and Wm. White. New York, John Wiley & sons, inc., 1913. 298 p.
- Larsen, Christian. Farm dairying, a treatise of dairy cattle, their feeding and care and the handling and disposition of dairy produce on the farm. New York, Orange Judd publishing co., 1919. 315 p.
- Larson, C. W. Dairy cattle feeding and management, by C. W. Larson and F. S. Putney. New York, John Wiley & sons, inc., 1917. 471 p.
- McCandlish, A. C. The feeding of dairy cattle. New York, John Wiley & sons, inc., 1922. 231 p.
- McKay, G. L. Principles and practice of butter-making, by G. L. McKay and C. Larsen. 3d ed. largely rewritten. New York, John Wiley & sons, inc., 1922. 405 p.
- MacNutt, J. S. The modern milk problem in sanitation, economics, and agriculture. New York, The Macmillan co., 1917. 253 p.
- Meyer, M. H. Modern butter making and dairy arithmetic. Madison, Wis., The author, 1910. 306 p.

BOOKS... (Cont.)

- Michels, John. Creamery butter making. 6th ed. rev. and enl. Milwaukee, Wis., The author, 1911. 361 p.
- Michels, John. Dairy farming. 8th ed. Peebles, Wis., The author, 1916. 300 p.
- Michels, John. Market dairying and milk products. 2d ed. rev. and enl. Wauwatosa, Wis., The author, 1912. 372 p.
- Mojonnier, Timothy. The technical control of dairy products; a treatise on the testing, analyzing, standardizing and the manufacture of dairy products. By Timothy Mojonnier and H. C. Troy. 1st ed. Mojonnier Bros., co., Chicago, Ill., Milk Engineers, 1922. 909 p.
- Mortensen, Martin. Management of dairy plants. New York, The Macmillan co., 1921. 358 p.
- Mumford, F. B. The breeding of animals. New York, The Macmillan co., 1917. 310 p.
- North, C. E. Farmers' clean milk book. 1st ed. New York, John Wiley & sons, inc., 1918. 132 p.
- Parker, H. N. City milk supply. 1st ed. New York, McGraw-Hill book co., inc., 1917. 493 p.
- Plumb, C. S. Types and breeds of farm animals. Rev. ed. Boston, Ginn & co., 1920. 820 p.
- Publow, C. A. Fancy cheese in America, from the milk of cows, sheep and goats. Chicago, American sheep breeder co., 1910. 96 p.
- Race, Joseph. The examination of milk for public health purposes. 1st ed. New York, John Wiley & sons, inc., 1918. 224 p.
- Roberts, J. R. Stocks and stalks; a book for the dairy farmer. Lincoln, Nebr., H. Westfall, sales agent, 1921. 102 p.
- Roberts, M. H., jr. The dairy record and feeding chart. New York, Longmans, Green & co., 1920. 215 p.
- Roberts, M. H., jr. Feeding and management of dairy cattle for official production. New York, Longmans, Green & co., 1920. 294 p.
- Rosenau, M. J. The milk question. New York, Houghton Mifflin co., 1912. 309 p.
- Russell, H. L. Experimental dairy bacteriology, by H. L. Russell and E. G. Hastings. Boston, Ginn & co., 1909. 147 p.

BOOKS. (Cont.)

- Russell, H. L. Outlines of dairy bacteriology; a concise manual for the use of students in dairying, by H. L. Russell and E. G. Hastings. 11th ed. Madison, Wis., H. L. Russell, 1920. 231 p.
- Sammis, J. L. Cheese making; a book for practical cheesemakers, factory patrons, agricultural colleges and dairy schools. 6th ed. of Decker's Cheesemaking, entirely rewritten. Madison, Wis., Mendota book co., 1918. 225 p.
- Savage, E. S. Better dairy farming, by E. S. Savage and L. A. Maynard. Ithaca, N. Y., Savage-Maynard co., 1923. 250 p.
- Savage, E. S. Feeding dairy cattle. 3d and rev. ed. Syracuse, N. Y., E. S. Savage, 1921. 142 p.
- Savage, E. S. Feeds and feeding manual, by E. S. Savage and F. B. Morrison. Madison, Wis., The Henry-Morrison co., 1922. 165 p.
- Shaw, Thomas. Management and feeding of cattle. New York, Orange Judd publishing co., 1909. 461 p.
- Smith, J. F. Smith's butterfat computer. Kansas City, Mo., J. F. Smith, 1919. 99 p.
- Stocking, W. A. Manual of milk products. New York, The Macmillan co., 1917. 578 p.
- Thom, Charles. The book of cheese, by Charles Thom and W. W. Fisk. New York, The Macmillan co., 1918. 392 p.
- Troy, H. C. Dairy laboratory exercises on testing and composition of dairy products, by H. C. Troy and T. J. McInerney. 1st ed. Ithaca, N. Y., Ithaca publishing co., 1921. 166 p.
- U. S. Hygienic Laboratory. Milk and its relation to the public health. Washington, Gov't. print. off., 1909. 834 p. (U.S. Hygienic Laboratory Bul. 56.)
- Van Pelt, H. G. How to feed the dairy cow, breeding and feeding dairy cattle. Waterloo, Iowa, Fred L. Kimball co., 1919. 290 p.
- Van Pelt, H. G. Van Pelt's cow demonstration. 8th ed. Waterloo, Iowa, Kimball's dairy farmer, 1911. 35 p.
- Van Slyke, L. L. Modern methods of testing milk and milk products; a handbook prepared for the use of dairy students, butter makers, cheese makers, producers of milk, operators in condenseries, managers of milk-shipping stations, milk-inspectors, physicians, etc. 2d rev. ed. New York, Orange Judd publishing co., 1913. 286 p.

BOOKS. (Cont.)

- Van Slyke, L. L. The science and practice of cheese-making; a treatise on the manufacture of American cheddar cheese and other varieties, intended as a text-book for the use of dairy teachers and students in classroom and workroom, by L. L. Van Slyke and C. A. Publow. New York, Orange Judd publishing co., 1909. 483 p.
- Ward, A. R. Pure milk and the public health; a manual of milk and dairy inspection, by A. R. Ward. With two chapters by M. E. Jaffa. Ithaca, N. Y., Taylor & Carpenter, 1909. 218 p.
- Washburn, R. M. Productive dairying. Philadelphia, J. B. Lippincott co., 1917. 432 p.
- Wiest, Edward. The butter industry in the United States; an economic study of butter and oleomargarine. New York, Columbia university press, 1916. 264 p.
- Wing, H. H. Milk and its products; a treatise upon the nature and qualities of dairy milk and the manufacture of butter and cheese. Rev. and enl. New York, The Macmillan co., 1913. 433 p.
- Winslow, Kenelm. The production and handling of clean milk, including practical milk inspection, by Kenelm Winslow and--Essentials of milk bacteriology, by H. W. Hill. 2d ed. New York, W. R. Jenkins co., 1909. 207 p.
- Woll, F. W. A handbook for farmers and dairymen. 6th ed. rev. New York, John Wiley & sons, inc., 1914. 400 p.
- Woll, F. W. Productive feeding of farm animals. 3d rev. ed. Philadelphia, J. B. Lippincott co., 1921. 385 p.

Part 4. PERIODICALS.

Ayrshire Digest. Spencer, Mass. Monthly. \$1.50.

Brown Swiss Bulletin. Beloit, Wis. Monthly. \$1.00

Bulletin of the Associated Milk Producers. San Francisco, Calif. Monthly.

Butter, Cheese & Egg Journal. Milwaukee, Wis. Weekly. \$2.00; Canada and Foreign, \$2.50.

California Dairyman. Los Angeles, Calif. Semi-monthly.

Chicago Dairy Produce. Chicago, Ill. Weekly. \$2.00; Canada, \$3.00; Foreign countries in Postal Union, \$4.00.

Creamery and Milk Plant Monthly. Chicago, Ill. \$1.00; Canada, \$1.25; Foreign, \$1.50.

Creamery Journal. Waterloo, Iowa. Semi-monthly. \$.75; Canada, \$1.00; Foreign countries in Postal Union, \$2.00.

Dairy Farmer. Des Moines, Iowa. Semi-monthly. 3 years, \$1.00; Canada and Foreign, 3 years, \$2.00.

Dairy Journal. Portland, Oreg. Monthly. \$1.00; Canada and Foreign, \$2.00.

Dairy Record. St. Paul, Minn. Weekly. \$1.50; Canada and Foreign, \$2.00.

Dairy World. Chicago, Ill. Monthly. \$1.00; Canada, \$1.50; Foreign, \$2.00.

Dairymen's League News. Utica, N. Y. Weekly. \$1.00.

PERIODICALS. (Cont.)

- Guernsey Breeders' Journal. Peterboro, N. H. Semi-monthly. \$2.00.
- Hoard's Dairyman. Fort Atkinson, Wis. Weekly. 1 year, \$1.00, 3 years, \$2.00; Canada, \$1.50; Foreign countries in Postal Union, \$2.50; not in the Postal Union, \$3.00, including postage.
- Holstein-Breeder and Dairyman. Harrisburg, Pa. Semi-monthly. 1 year, \$.75, 2 years \$1.00.
- Holstein-Friesian Register. Brattleboro, Vt. Semi-monthly. \$1.00; Canada, \$1.25; Foreign \$1.50.
- Holstein-Friesian World. Syracuse, N. Y. Weekly. 1 year, \$1.00, 3 years, \$2.00; Canada and Foreign, 1 year \$2.00, 3 years, \$5.00.
- Ice Cream Field. Atlanta, Ga. Monthly. \$2.00.
- Ice Cream Trade Journal. New York, N. Y. Monthly. \$2.00; Canada, \$2.25; Foreign, \$2.50.
- Ice Cream Review. Milwaukee, Wis. Monthly. \$2.00; Canada and Foreign, \$2.50.
- Inter-State Milk Producers Review. Philadelphia, Pa. Monthly. \$.50.
- Jersey Bulletin and Dairy World. Indianapolis, Ind. Weekly. 1 year, \$2.00, 2 years, \$3.00; Canada, \$2.50; Foreign, \$4.00.
- Journal of Dairy Science. Baltimore, Md. Bi-monthly. \$5.00; Canada, \$5.25; Foreign, \$5.50.
- Michigan Milk Messenger. Detroit, Mich. Monthly. \$.50.
- Milk Dealer. Milwaukee, Wis. Monthly. \$2.00; Canada and Foreign, \$3.00.
- Milk Goat News. San Francisco, Calif. Semi-monthly. \$1.50; Canada, \$1.75; Foreign, \$2.00.
- Milk Magazine. Waterloo, Iowa. Monthly. \$1.00; Canada, \$1.50; Foreign countries in Postal Union, \$2.00.
- Milk News. Chicago, Ill. Monthly. \$.75, 3 years, \$1.50.
- Milk Reporter. Sussex, N. J. Monthly. \$2.00.
- Milking Shorthorn Journal. Independence, Iowa. Bi-monthly.
- National Poultry, Butter and Egg Journal. Chicago, Ill. Monthly. \$3.00; Canada, \$3.25; Foreign \$3.50.

PERIODICALS. (Cont.)

New England Dairyman. Boston, Mass. Monthly \$.50.

New York Produce Review and American Creamery. New York, N. Y. Weekly.
\$2.00; Canada, \$3.00; Foreign, \$4.00.

Pacific Dairy Review. San Francisco, Calif. Weekly. \$1.00; Canada, \$1.50;
Foreign, \$2.00.

Red Polled Journal. Minneapolis, Minn. Monthly. 1 year, \$1.00, 2 years,
\$1.75; Canada, 1 year, \$1.25, 2 years, \$2.25; Foreign, 1 year, \$1.50,
2 years, \$2.75.

Southern Dairyman. Montgomery, Ala. Monthly. \$1.00; Canada, \$1.00; Foreign
postage \$.25 extra.

Western Milk Dealer and Dairyman. Seattle, Wash. Monthly. \$1.00.

Part 5. SUBJECT LIST.

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SUBJECT LIST.

DAIRYING.

1900. Practical dairying. R. J. Redding and H. J. Wing. p.177-229.
(Ga.Agr.Expt.Sta.Bul.49.)

Notes upon dairying in California and the export of California butter to the Orient. R. A. Pearson. 29 p. (U.S.Dept.Agr.Bur. Anim.Indus.Bul.24.)

Officials, associations, and educational institutions connected with the dairy interests of the United States for the year 1900. 10 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.29.)

1901. Dairy industry in Wisconsin. H. L. Russell. 11 p. (Wis.Agr.Expt. Sta.Bul.83.)

Officials, associations, and educational institutions connected with the dairy interests of the United States for the year 1901. 8 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.33.)

1902. Dairy husbandry. H. J. Waters and C. H. Eckles. 31 p. (Mo.Agr. Expt.Sta.Bul.56.)

Dairying in the South. S. M. Tracy. 48 p. (U.S.Dept.Agr.Farmers' Bul.151.)

Officials, associations, and educational institutions connected with the dairy interests of the United States for the year 1902. 8 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.36.)

1903. Dairy conditions and suggestions for their improvement. W. J. Fraser. p.577-631. (Ill.Agr.Expt.Sta.Bul.84.)

Dairy investigations. W. J. Fraser. 7 p. (Ill.Agr.Expt.Sta.Circ. 63.)

Dairying at home and abroad. H. E. Alvord. p.145-154. (U.S.Dept. Agr., Yearbook, 1902, Sep.260.)

Statistics of the dairy. Compiled from the United States census for 1900, and from other reliable sources, with explanatory notes, by H. E. Alvord. 88 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.55.)

Officials, associations, and educational institutions connected with the dairy interests of the United States for the year 1903. 11 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.40.)

1904. Dairying on the plains. J. E. Payne. p.19-24. (Colo.Agr.Expt.Sta. Bul.88.)

SUBJECT LIST.

DAIRYING. (Cont.)

1904. Milk production at the University of Illinois. W. J. Fraser. 16 p.
(Ill.Agr.Expt.Sta.Circ.73.)

A model farm. W. J. Spillman. p.363-370. (U.S.Dept.Agr.Yearbook,
1903, Sep.323.)

Officials, associations and educational institutions connected with
the dairy interests of the United States for the year 1904. 12 p.
(U.S.Dept.Agr.Bur.Anim.Indus.Circ.44.)

The international dairy federation and international dairy congresses.
14 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.46.)

1905. The dairy industry in New Hampshire. I. C. Weld. p.71-80. (N.H.
Agr.Expt.Sta.Bul.120.)

Farm dairying. J. C. Kendall. 48 p. (N.C.Agr.Expt.Sta.Bul.192.)

Officials, associations, and educational institutions connected with
the dairy interests of the United States for the year 1905. 12 p.
(U.S.Dept.Agr.Bur.Anim.Indus.Circ.80.)

1906. Officials, associations, and educational institutions connected with
the dairy interests of the United States for the year 1906. 14 p.
(U.S.Dept.Agr.Bur.Anim.Indus.Circ.99.)

1907. National association of dairy instructors and investigators. 59 p.
(Ill.Agr.Expt.Sta.Circ.111.)

Disposal of dairy and farm sewage, and water-supply. Oscar Erf.
p.125-139. (Kans.Agr.Expt.Sta.Bul.143.)

A profitable tenant dairy farm. Lyman Carrier. 16 p. (U.S.Dept.
Agr.Farmers' Bul.260.)

Opportunities for dairying. W. H. Dexter. p.405-428. (U.S.Dept.
Agr.Yearbook, 1906, Sep.432.)

Officials, associations, commissions, and educational institutions
connected with the dairy interests of the United States for the
year 1907. 22 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.115.)

1908. Improving dairy conditions. J. M. Trueman. p.139-164. (Conn., Storrs,
Agr.Expt.Sta.Bul.53.)

Officials, organizations, and educational institutions connected with
the dairy interests (1908). 31 p. (U.S.Dept.Agr.Bur.Anim.Indus.
Circ.135.)

SUBJECT LIST.

DAIRYING. (Cont.)

1909. Opportunities for instruction in dairy industry at the university farm, Davis, California, 1909-1910. 14 p. (Calif.Agr.Expt.Sta. Circ.44.)
- Better dairy methods. J. H. Frandson. 48 p. (Idaho Agr.Expt. Sta.Bul.67.)
- Dairy suggestions from European conditions as seen in the British Isles, Holland, and Denmark. W. J. Fraser and R. E. Brand. p.460-521. (Ill.Agr.Expt.Sta.Bul.140.)
- Agricultural extension, IV (Milk production, III): Economic and sanitary milk production. O. F. Hunziker and O. E. Reed. 24 p. (Ind.Agr.Expt.Sta.Circ.20.)
- The dairy industry in the South. B. H. Rawl, Duncan Stuart and G. M. Whitaker. 37 p. (U.S.Dept.Agr.Farmers' Bul.349.)
- A successful poultry and dairy farm. W. J. Spillman. 40 p. (U.S.Dept.Agr.Farmers' Bul.355.)
- Lane, C. B. The business of dairying; how to conduct dairy farming for the largest profit. New York, Orange Judd publishing co. 234 p.
1910. Conservation of energy, and its relation to the dairyman. W. J. Fraser. 26 p. (Ill.Agr.Expt.Sta.Circ.143.)
- Officials, organizations, and educational institutions connected with the dairy interests (1910). 31 p. (U.S.Dept.Agr.Bur.Anim. Indus.Circ.162.)
1911. Dairying in Montana. R. W. Clark. p.17-36. (Mont.Agr.Expt.Sta. Circ.10.)
- The progress of the dairy industry in Wisconsin. H. C. Taylor and C. E. Lee. 30 p. (Wis.Agr.Expt.Sta.Bul.210.)
- Practical lessons from the management of the university dairy herd. G. C. Humphrey and F. W. Woll. 34 p. (Wis.Agr.Expt.Sta.Bul. 217.)
- Eckles, C. H. Dairy cattle and milk production. New York, The Macmillan co. 342 p.
1912. Dairying in connection with farming. A. A. Turner. p.3-11. (Ala., Tuskegee, Agr.Expt.Sta.Bul.22.)

SUBJECT LIST.

DAIRYING. (Cont.)

1912. Production and inspection of milk. E. V. Wilcox. 343 p. (Hawaii Agr.Expt.Sta.[Pub.]..)
- More winter dairying in South Dakota. Christian Larsen. p.286-305. (S.Dak.Agr.Expt.Sta.Bul.134.)
- Officials, organizations, and educational institutions connected with the dairy interests (1912). 26 p. (U.S.Dept.Agr.Bur.Anim.Indus. Circ.204.)
- Burch, D. S. Dairy farming. What cows to buy, how to house, feed, and care for them and make dairying pay. Philadelphia, The Penn publishing co. 208 p.
1913. The dairyman's relation to quality. L. M. Davis. 2 p. (Calif.Agr. Expt.Sta.Circ.94.)
- Dairying on cut-over pine lands. E. B. Ferris. 24 p. (Miss.Agr. Expt.Sta.Bul.166.)
- Dairying and its relation to agriculture in semiarid sections. A. K. Risser. p.463-470. (U.S.Dept.Agr.Yearbook,1912,Sep.606.)
- Erf, Oscar. Dairy fundamentals, by Oscar Erf and O. C. Cunningham. 2d ed. Columbus, O. The authors. 96 p.
1914. Some important factors for success in general farming and in dairy farming. G. F. Warren. p.657-702. (N.Y.,Cornell,Agr.Expt.Sta. Bul.349.)
- Eradication of the cattle tick necessary for profitable dairying. J. H. McClain. 4 p. (U.S.Dept.Agr.Farmers' Bul.639.)
- Advantages of dairying in the South. Dairy Division. 4 p. (U.S. Dept.Agr.Bur.Anim.Indus.[Pub.]..)
- Woll, F. W. A handbook for farmers and dairymen. 6th ed. rev. New York, John Wiley & sons, inc. 400 p.
1915. Dairy farming. O. E. Reed. 26 p. (Kans.Agr.Expt.Sta.Circ.45.) For rev. see Circ.90.
1916. Eckles, C. H. Dairy farming, by C. H. Eckles and G. F. Warren. New York, The Macmillan co. 309 p.
- Michels, John. Dairy farming. 3th ed. Peebles, Wis., The author. 300 p.

SUBJECT LIST.

DAIRYING. (Cont.)

1917. The management of dairy herds. E. V. Ellington. 40 p. (Idaho Agr. Expt. Sta. Bul. 102.)
- An experiment in community dairying. R. P. Welch. p. 209-216. (U.S. Dept. Agr. Yearbook, 1916, Sep. 707.)
- Larson, C. W. Dairy cattle feeding and management, by C. W. Larson and F. S. Putney. New York, John Wiley & sons, inc. 471 p.
- Washburn, R. M. Productive dairying. Philadelphia, J. B. Lippincott co. 432 p.
1918. Dairying in Florida. J. M. Scott. p. 59-76. (Fla. Agr. Expt. Sta. Bul. 142.)
- A study of share-rented dairy farms in Green County, Wis., and Kane County, Ill. E. A. Boeger. 15 p. (U.S. Dept. Agr. Bul. 603.)
- The agricultural situation for 1913: A series of statements prepared under the direction of the secretary of agriculture. pt. 2. Dairying. 24 p. (U.S. Dept. Agr. Off. Sec. Circ. 85.)
- How the dairy cow brought prosperity in the wake of the boll weevil. L. A. Higgins. p. 303-310. (U.S. Dept. Agr. Yearbook, 1917, Sep. 744.)
- Gardner, F. D. Live stock and dairy farming. A non-technical manual for the successful breeding, care and management of farm animals, the dairy herd, and the essentials of dairy production, by F. D. Gardner [and others]. Philadelphia, John C. Winston co. 196 p.
- Hatch, K. L. Profitable dairying, by K. L. Hatch and G. H. Benken-dorf. Chicago, Row, Peterson & co. 162 p.
1919. Rotation of dairy farm crops: Phosphorus and calcium must be added to maintain fertility. C. E. Thorne. (Ohio Agr. Expt. Sta., Monthly Bul. v. IV, no. 1, p. 1-3.)
- Lessons on dairying for rural schools. Alvin Dille. 31 p. (U.S. Dept. Agr. Bul. 763.)
- How dairying built up a community. J. C. McDowell. p. 153-168. (U.S. Dept. Agr. Yearbook, 1918, Sep. 765.)
- Larsen, Christian. Farm dairying, a treatise of dairy cattle, their feeding and care and the handling and disposition of dairy produce on the farm. New York, Orange Judd publishing co. 315 p.

SUBJECT LIST.

DAIRYING. (Cont.)

1920. Suggestions regarding dairying in northwestern Kansas. J. B. Fitch and J. J. Bayles. 16 p. (Kans.Agr.Expt.Sta.Circ.81.)
- The government exhibit at the 1920 National dairy show. 17 p. (U.S. Dept.Agr.Dept.Circ.139.)
1921. Dairy farming. J. B. Fitch. 32 p. (Kans.Agr.Expt.Sta.Circ.90.) Rev.of Circ.45.
- Crop rotations for a dairy farm: Lessons from the Hamilton County experiment farm. C. W. Montgomery. (Ohio Agr.Expt.Sta.Monthly Bul.v.VI,nos.9 & 10,p.149-152.)
- Roberts, J. R. Stocks and stalks; a book for the dairy farmer. Lincoln, Nebr., H. Westfall, sales agent. 102 p.
1922. The production and utilization of manure on Illinois dairy farms. H. A. Ross. p.473-489. (Ill.Agr.Expt.Sta.Bul.240.)
- Dairying in Porto Rico. D. W. May. 19 p. (Porto Rico Agr.Expt.Sta. Bul.29.)
- Renting dairy farms. H. A. Turner. 24 p. (U.S.Dept.Agr.Farmers' Bul.1272.)
- The use of fertilizers on dairy farms. A. R. Whitson and Griffith Richards. 24 p. (Wis.Agr.Expt.Sta.Bul.341.)
- A handbook of dairy statistics. T. R. Pirtle. 72 p. (U.S.Dept.Agr. Bsr.Anim.Indus.[Pub.] A.I.37.)
1923. The dairy industry. C. W. Larson [and others]. p.281-394. (U.S. Dept.Agr.Yearbook,1922,Sep.8/9.)
- Henry, W. A. Feeds and feeding, earlier editions by W. A. Henry, rewritten by F. B. Morrison. 18th ed. Madison, Wis., The Henry-Morrison co. 770 p.
- Savage, E. S. Better dairy farming, by E. S. Savage and L. A. Maynard. Ithaca, N. Y., Savage-Maynard co. 250 p.
- California Dairyman. Los Angeles, Calif. Semi-monthly.
- Dairy Farmer. Des Moines, Iowa. Semi-monthly. 3 years, \$1.00; Canada and Foreign, 3 years, \$2.00.
- Dairy Journal. Portland, Oreg. Monthly. \$1.00; Canada and Foreign, \$2.00.

SUBJECT LIST.

DAIRYING. (Cont.)

1923. Dairy Record. St. Paul, Minn. Weekly. \$1.50; Canada and Foreign, \$2.00.
- Hoard's Dairymen. Fort Atkinson, Wis. Weekly. 1 year, \$1.00; 3 years, \$2.00; Canada, \$1.50; Foreign countries in Postal Union, \$2.50; not in Postal Union, \$3.00, including postage.
- Journal of Dairy Science. Baltimore, Md. Bi-monthly. \$5.00; Canada, \$5.25; Foreign, \$5.50.
- Michigan Milk Messenger. Detroit, Mich. Monthly. \$.50.
- New England Dairymen. Boston, Mass. Monthly \$.50.
- Southern Dairymen. Montgomery, Ala. Monthly. \$1.00; Canada, \$1.00; Foreign postage \$.25 extra.

Legislation.

1900. National and state dairy laws. Comp. and abstracted by R. A. Pearson. 110 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.26.)
1904. United States and state standards for dairy products, 1904. 2 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.49.) For latest rev. see Bur. Anim.Indus.[Pub.] A-8.
1909. I, An act to provide for the protection of dairymen. II, The Babcock test. P. H. Smith. 8 p. (Mass.Agr.Expt.Sta.Circ.24.) Superseded by Circ.33.
- Legal standards for dairy products. 2 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.74, rev.) For latest rev. see Bur.Anim.Indus.[Pub.] A-8.
1910. Standards for evaporated milk, sweetened condensed milk and condensed skim-milk. Federal and state dairy laws. O. F. Hunziker. p.479-507. (Ind.Agr.Expt.Sta.Bul.143.) Same. Popular ed. 15 p.
1912. I, An act to regulate the use of utensils for testing the composition or value of milk and cream. II, Salient points in the act. III, Suggestions for making the Babcock test. P. H. Smith. 11 p. (Mass.Agr.Expt.Sta.Circ.33.) Supersedes Circ.24.
1913. Legal standards for dairy products. 2 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.213.) For latest rev. see Bur.Anim.Indus.[Pub.] A-8.
1916. Digest and copy of law regulating the weighing, testing and purchasing of milk and cream (Chapter 31, Laws of 1916). W. J. Carson. 16 p. (N.J.Agr.Expt.Sta.Circ.62.)

SUBJECT LIST.

DAIRYING.

Legislation. (Cont.)

1916. Legal standards for dairy products, revised to July 1, 1915. Dairy Division. 3 p. (U.S.Dept.Agr.Bur.Anim.Indus.[Pub.] A-8.) Supersedes Bur.Anim.Indus.Circs.49, 74, 218.
1917. A guide for formulating a milk ordinance. Prepared in the Dairy division of the Bureau of animal industry and in the Bureau of chemistry. 4 p. (U.S.Dept.Agr.Bul.585.)
1918. Rules and regulations of the secretary of agriculture under the food products inspection law of October 1, 1918. 3 p. (U.S.Dept.Agr. Off.Sec.Circ.120.)
1919. Standards of purity for food products. 22 p. (U.S.Dept.Agr.Off. Sec.Circ.136.) Supersedes Off.Sec.Circs.10,13,17, and 19, 1903-1906.
- The inspection of butter under the food products inspection law. Bureau of Markets. 23 p. (U.S.Dept.Agr.Bur.Markets Serv.& Reg. Announcement.51.)
1920. Buying and selling milk on a butterfat basis, containing a brief of the New Jersey law and the report of previous inspection. F. C. Button. 24 p. (N.J.Agr.Expt.Sta.Circ.121.)
1922. Rules and regulations for the enforcement of the federal food and drugs act. 27 p. (U.S.Dept.Agr.Off.Sec.Circ.21,8th rev.) 1st issue, 1906.

DAIRY BUILDINGS.

1901. A modern dairy barn. A. A. Brigham.-- Individuality of cows. W. A. Conant. p.17-107. (R.I.Agr.Expt.Sta.Bul.30.)
1905. Suggestions for the improvement of dairy barns. H. A. Hopper. 20 p. (Ill.Agr.Expt.Sta.Circ.95.)
1906. Suggestions for construction of a modern dairy barn. 6 p. (U.S. Dept.Agr.Bur.Anim.Indus.Circ.90.)
1908. Designs for dairy buildings. E. H. Webster. 26 p. (U.S.Dept.Agr. Bur.Anim.Indus.Circ.131.)
1909. The dairy cow's record and stable. Leroy Anderson [and C. W. Rubel]. p.65-90. (Calif.Agr.Expt.Sta.Bul.204.)
- Sanitary cow stalls. C. A. Ocock. 13 p. (Wis.Agr.Expt.Sta.Bul.185.) Superseded by Bul.325.

SUBJECT LIST.

DAIRY BUILDINGS. (Cont.)

1910. Economy of the round dairy barn. W. J. Fraser. 44 p. (Ill.Agr. Expt.Sta.Bul.143.) Circ.230 supersedes Bul.143.
- Iron cow stall; Hoard-Schulmerich stall. F. L. Kent. 4 p. (Oreg. Agr.Expt.Sta.Circ.9.)
1912. A plan for a small dairy house. Ernest Kelly and K. E. Parks. 5 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.195.) For latest rev. see Farmers' Bul.1214.
1913. Open stables versus closed stables for dairy animals. S. S. Buckley. - The bacterial content of milk produced in the open stable and in the closed stable. R. W. Lamson. p.219-252. (Md.Agr.Expt.Sta. Bul.177.)
1914. Construction and equipment of dairy barns. W. D. Nicholls. - The dairy barn at the Kentucky Agricultural Experiment Station. J. J. Hooper. p.36-117. (Ky.Agr.Expt.Sta.Bul.179.)
1915. The dairy barn and milk house, how to construct them. R. E. Hundertmark and A. B. Nystrom. 39 p. (Wash.Agr.Expt.Sta.Pop.Bul.95.)
- A plan for a small dairy house. Ernest Kelly and K. E. Parks. 4 p. (U.S.Dept.Agr.Farmers' Bul.689.) For rev. see Farmers' Bul.1214.
1916. The construction of the dairy house. H. A. Ruehe. 8 p. (Ill.Agr. Expt.Sta.Circ.188.)
- A milk house for Texas. Leroy Rhodes. 7 p. (Tex.Agr.Expt.Sta.Circ. 15.)
- Barns for Wisconsin dairy farms. F. M. White and C. I. Griffith. 32 p. (Wis.Agr.Expt.Sta.Bul.266.) Superseded by Bul.325.
1917. The arrangement of rectangular dairy barns. R. S. Hulce and W. B. Nevens. 30 p. (Ill.Agr.Expt.Sta.Circ.199.)
- Cooling tanks and milk houses as factors in cream improvement. J. H. Frandsen. 19 p. (Nebr.Agr.Expt.Sta.Circ.3.)
1918. The round barn. W. J. Fraser. 52 p. (Ill.Agr.Expt.Sta.Circ.230.) Rev. of Bul.143.
- The open shed compared with the closed barn for dairy cows. T. E. Woodward, W. F. Turner, W. R. Hale and J. B. McNulty. 15 p. (U.S. Dept.Agr.Bul.736.)

SUBJECT LIST.

DAIRY BUILDINGS. (Cont.)

1919. Dairy barn and milk house arrangement. J. H. Frandsen and W. B. Nevens. 25 p. (Nebr.Agr.Expt.Sta.Circ.6.)
1921. The adobe milkhouse. C. B. Brown. 4 p. (Ariz.Agr.Expt.Sta.Circ.38.)
- Dairy barns. C. R. Zeasman, G. C. Humphrey and L. M. Schindler. 34 p. (Wis.Agr.Expt.Sta.Bul.325.) Supersedes Buls.185, 266.
- Farm dairy houses. Ernest Kelly and K. E. Parks. 14 p. (U.S. Dept.Agr.Farmers' Bul.1214.) Rev. of Bur.Anim.Indus.Circ.195 and Farmers' Bul.689.
1923. Plans for small barns. L. J. Smith. 26 p. (Wash.Agr.Expt.Sta. Pop.Bul.123.)

DAIRY APPARATUS AND EQUIPMENT.

1901. The use of hand separators on the farm. G. H. True. p.277-280. (Ariz.Agr.Expt.Sta.Timely Hints for Farmers 29.)
- A bacteriological study of the college creamery milk supply; a case of putrid butter. C. H. Eckles. - Purification of milk by the centrifugal separator. C. H. Eckles and S. E. Barnes. p.37-59. (Iowa Agr.Expt.Sta.Bul.59.)
1903. The covered pail a factor in sanitary milk production. W. A. Stocking, jr. 24 p. (Conn., Storrs, Agr.Expt.Sta.Bul.25.)
1904. The cream separator on western farms. E. H. Webster and C. E. Gray. 24 p. (U.S.Dept.Agr.Farmers' Bul.201.)
- The farm separator: Its relation to the creamery and to the creamery patron. E. H. Webster. 47 p. (U.S.Dept.Agr.Bur. Anim.Indus.Bul.59.)
1905. Care of dairy utensils. Oscar Erf and C. W. Melick. p.9-20. (Kans.Agr.Expt.Sta.Bul.131.)
1906. The hand separator and the gravity systems of creaming. O. F. Hunziker. p.341-364. (Ind.Agr.Expt.Sta.Bul.116.)
- Milking machines. Oscar Erf. 67 p. (Kans.Agr.Expt.Sta.Bul. 140.)
- I, Efficiency of cream separators under farm conditions. I. P. Whitney. --II, Dairy school cream separator tests. F. L. Kent. 17 p. (Oreg.Agr.Expt.Sta.Bul.89.)

SUBJECT LIST.

DAIRY APPARATUS AND EQUIPMENT. (Cont.)

1907. Milking machines: I, Effect upon quality of milk. W. A. Stocking, jr. and C. J. Mason.-- II, Effect upon milk yield. C. L. Beach. p.105-133. (Conn., Storrs, Agr.Expt.Sta.Bul.47.)

Comparative studies with covered milk pails. W. A. Stocking, jr. p.77-103. (Conn., Storrs, Agr.Expt.Sta.Bul.48.)

The milking machine as a factor in dairying (a preliminary report). I, Practical studies of a milking machine. C. B. Lane.-- II, Bacteriological studies of a milking machine. W. A. Stocking, jr. 55 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.92.)

1908. Milking machines. A. L. Haecker and E. M. Little. 73 p. (Nebr. Agr.Expt.Sta.Bul.103.)

Test of a mechanical cow milker. T. I. Mairs. 11 p. (Pa.Agr.Expt.Sta.Bul.85.)

1909. Milking machines: [I]. Effect of method of handling on germ content of the milk. H. A. Harding, J. K. Wilson and G. A. Smith. p.253-292. (N.Y., State, Agr.Expt.Sta.Bul.317.)

Popular ed. Milking machines and clean milk. Summarized by F. H. Hall from bulletin by H. A. Harding, J. K. Wilson and G. A. Smith. 10 p.

Milking machine experiments. F. W. Woll and G. C. Humphrey. 30 p. (Wis.Agr.Expt.Sta.Bul.173.)

The efficiency, economy and physiological effect of machine-milking. F. W. Woll and G. C. Humphrey. p.61-148. (Wis.Agr.Expt.Sta.Res. Bul.3.)

1910. The modern milk pail. H. A. Harding, J. K. Wilson and G. A. Smith. p.249-281. (N.Y., State, Agr.Expt.Sta.Bul.326.)

Popular ed. Covered pails mean cleaner milk. Summarized by F. H. Hall from bulletin by H. A. Harding, J. K. Wilson and G. A. Smith. 6 p.

The efficiency of hand separators. W. K. Brainerd and W. L. Mallory. 19 p. (Va.Agr.Expt.Sta.Bul.186.)

1911. Factors affecting the per cent of fat in cream from farm separators. C. H. Eckles and H. S. Wayman. p.517-558. (Mo.Agr.Expt.Sta.Bul. 94.) Circ.37 is a popular discussion of Bul.94.

SUBJECT LIST.

DAIRY APPARATUS AND EQUIPMENT. (Cont.)

1912. Milking machines: [II]. Effect of the machine method of milking upon the milk flow. G. A. Smith and H. A. Harding. p.327-361. (N.Y., State, Agr.Expt.Sta.Bul.353.)
- Popular ed. Machine milking does not affect milk flow. Summarized by D. H. Hall from bulletin by G. A. Smith and H. A. Harding. 11 p.
1913. Milking machines: Their sterilization and their efficiency in producing clean milk. Lois W. Wing. p.65-74. (N.Y., Cornell, Agr.Expt.Sta.Circ.18.)
- Preliminary report on the milking machine. Christian Larsen, William White, and J. W. Fuller. p.205-232. (S.Dak.Agr.Expt.Sta.Bul.144.)
- Cause of variation in per cent of fat of market cream from farm separators. V. R. Jones. 8 p. (Wash.Agr.Expt.Sta.Pop.Bul.53.)
1914. Experiments with the Sharples mechanical milker. J. J. Hooper and J. W. Nutter. p.474-510. (Ky.Agr.Expt.Sta.Bul.136.)
- Conveniences for handling the farm cow and her products. Dairy Division. 6 p. (U.S.Dept.Agr.Bur.Anim.Indus.[Pub.])
1915. Inexpensive appliances and utensils for the dairy. W. D. Nicholls. p.15-31. (Ky.Agr.Expt.Sta.Circ.6.)
1916. Cream testing balances. O. F. Hunziker, George Spitzer and G. L. Ogle. 20 p. (Ind.Agr.Expt.Sta.Bul.139.)
- Important factors affecting machine milking. Christian Larsen. p.394-421. (S.Dak.Agr.Expt.Sta.Bul.136.)
- Labor requirements of dairy farms as influenced by milking machines. H. N. Humphrey. 17 p. (U.S.Dept.Agr.Bul.423.)
1917. Factors of importance in producing milk of low bacterial count. C. L. Roadhouse. 11 p. (Calif.Agr.Expt.Sta.Circ.179.)
- Care of the cream separator. H. A. Ruehe. 2 p. (Ill.Agr.Expt.Sta.Circ.191.)
1918. Germ content of milk: II, As influenced by the utensils. M. J. Prucha, H. M. Weeter, and W. H. Chambers. p.217-257. (Ill.Agr.Expt.Sta.Bul.204.)

SUBJECT LIST.

DAIRY APPARATUS AND EQUIPMENT. (Cont.)

1918. Milking machines: III, As a source of bacteria in milk: IV, Methods of maintaining in a bacteria-free condition. G. L. A. Ruehle, R. S. Breed and G. A. Smith. p.115-181. (N.Y., State, Agr. Expt. Sta. Bul. 450.)

Popular ed. Control of bacteria in milking machines. Summarized by F. H. Hall from bulletin by G. L. A. Ruehle, R. S. Breed and G. A. Smith. 15 p.

Milking machines may be of great service during the present labor shortage if used on farms where 20 or more cows are kept. 5 p. (N.Y., State, Agr. Expt. Sta. Circ. 54, rev.) 1st ed., 1917.

1919. Investigations with milking machines. F. W. Woll. p.31-54. (Calif. Agr. Expt. Sta. Bul. 311.)

A simple steam sterilizer for farm dairy utensils. S. H. Ayers and G. B. Taylor. 16 p. (U.S. Dept. Agr. Farmers' Bul. 748, rev.) 1st ed., 1916.

1920. Elimination of germs from dairy utensils: I, By rinsing; II, by drying in sun and air. M. J. Prucha and H. A. Harding. p.139-168. (Ill. Agr. Expt. Sta. Bul. 230.) Abstract. 4 p.

A study of brown glass milk bottles, with special reference to their use in preventing abnormal flavors due to light. B. W. Hammer and W. A. Cordes. p.99-111. (Iowa Agr. Expt. Sta. Res. Bul. 64.)

Milking machines: V, The production of high grade milk with milking machines under farm conditions. J. W. Bright. 27 p. (N.Y., State, Agr. Expt. Sta. Bul. 472.)

Popular ed. Neglect of details in care of milking machines results in low grade milk. Summarized by J. D. Lockett from bulletin by J. W. Bright. 13 p.

Milk-plant equipment. Ernest Kelly and C. E. Clement. 42 p. (U.S. Dept. Agr. Bul. 890.)

1921. Milking machines: VI, Leakage from the vacuum pipe line into the pail as a source of contamination of milk: R. S. Breed and J. W. Bright. 19 p. (N.Y., State, Agr. Expt. Sta. Bul. 488.)

Popular ed. Leaky valves on milking machines contaminate milk. Summarized by J. C. Lockett from bulletin by R. S. Breed and J. W. Bright. 8 p.

SUBJECT LIST.

DAIRY APPARATUS AND EQUIPMENT. (Cont.)

1922. Milking machines: VII, Further studies on methods of sterilization. A. H. Robertson, M. W. Finch and R. S. Breed. 36 p. (N.Y., State, Agr.Expt.Sta.Bul.492.)

Popular ed. Practical suggestions for sterilizing milking machine tubes. Summarized by J. D. Lockett from bulletin by A. H. Robertson, M. W. Finch and R. S. Breed. 8 p.

1923. Comparative expense of mechanical and hand milking. F. A. Pearson and H. A. Ross. p.493-506. (Ill.Agr.Expt.Sta.Bul.241.)

Cleaning milking machines. L. H. Burgwald. 16 p. (U.S.Dept.Agr. Farmers' Bul.1315.)

DAIRY PRODUCTS.

1901. Dairy products at the Paris exposition of 1900. H. E. Alvord. p.599-624. (U.S.Dept.Agr.Yearbook, 1900, Sep.199.)

1912. Effects of alkali water on dairy products. Christian Larsen, W. White, and D. E. Bailey. p.220-254. (S.Dak.Agr.Expt.Sta.Bul.132.) See also Bul.147.)

1914. Testing and handling dairy products. Christian Larsen and J. M. Fuller. p.23-56. (S.Dak.Agr.Expt.Sta.Bul.152.)

1915. The production and consumption of dairy products. Eugene Merritt. 19 p. (U.S.Dept.Agr.Bul.177.)

1916. Metallic flavor in dairy products. E. S. Guthrie. p.609-643. (N.Y., Cornell, Agr.Expt.Sta.Bul.373.)

1918. Report for three years of the education scoring of Connecticut dairy products. H. F. Judkins. p.417-446. (Conn., Storrs, Agr. Expt.Sta.Bul.93.)

1919. Food values and dairy products. O. R. Overman. 28 p. (Ill.Agr. Expt.Sta.Circ.235.)

1921. Burnt or caramel flavor of dairy products. B. W. Hammer and W. A. Cordes. p.147-156. (Iowa Agr.Expt.Sta.Res.Bul.63.)

1923. Chicago Dairy Produce. Chicago, Ill. Weekly. \$2.00; Canada, \$3.00; Foreign countries in Postal Union, \$4.00.

SUBJECT LIST.

DAIRY PRODUCTS.

Milk.

1900. Notes on some dairy troubles: Introductory.- flavor in milk and its products; I, fishy flavor in milk; II, bitter flavor in Neufchatel cheese; III, sweet flavor in cheddar cheese; IV, rusty spot in cheddar cheese. H. A. Harding, L. A. Rogers and G. A. Smith. p.173-193. (N.Y., State, Agr.Expt. Sta.Bul.183.)
- Popular ed. Dairy disagreeables busy the bacteriologists. F. H. Hall, H. A. Harding, L. A. Rogers, and G. A. Smith. 9 p.
1901. Comparative skimming qualities of Holstein and Jersey milk. W. D. Saunders. p.23-29. (Va.Agr.Expt.Sta.Bul.122.)
1902. Standard milk and cream. W. J. Fraser. p.283-296. (Ill.Agr.Expt. Sta.Bul.74.)
- Standardization of milk and cream. Oscar Erf. p.297-309. (Ill.Agr. Expt.Sta.Bul.75.)
- Standard milk and cream. W. J. Fraser. 12 p. (Ill.Agr.Expt.Sta. Circ.51.)
- Investigations of methods of milking. F. W. Woll. 78 p. (Wis.Agr. Expt.Sta.Bul.96.)
1903. Standard milk. F. W. Morse. p.79-82. (N.H.Agr.Expt.Sta.Bul.103.)
- Methods of milking. H. H. Wing and J. A. Foord. p.53-66. (N.Y., Cornell, Agr.Expt.Sta.Bul.213.)
1905. Methods of milking. F. G. Krauss. 15 p. (Hawaii Agr.Expt.Sta.Bul. 8.)
- Leucocytes in milk and their significance. C. F. Doane. p.205-223. (Ma.Agr.Expt.Sta.Bul.102.)
1906. Market milk investigations. II, The milk and cream exhibit at the National dairy show, 1906. C. B. Lane. 21 p. (U.S.Dept.Agr.Bur. Anim.Indus.Bul.87.)
1907. A city milk and cream contest as a practical method of improving the milk supply. C. B. Lane and I. C. Weld. 28 p. (U.S.Dept.Agr. Bur.Anim.Indus.Circ.117.)
1908. Medical milk commissions and the production of certified milk in the United States. C. B. Lane. 43 p. (U.S.Dept.Agr.Bur.Anim.Indus. Bul.104.)

SUBJECT LIST.

DAIRY PRODUCTS.

Milk. (Cont.)

1909. Leucocytes in milk: Methods of determination and the effect of heat upon their number. H. C. Campbell. 19 p. (U.S.Dept.Agr. Bur.Anim.Indus.Bul.117.)

Competitive exhibitions of milk and cream, with report of an exhibition held at Pittsburg, Pa., in cooperation with the Pittsburg chamber of commerce. C. B. Lane and I. C. Weld. 36 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.151.)

U. S. Hygienic Laboratory. Milk and its relation to the public health. Washington, Gov't. print. off. 834 p. (U.S. Hygienic Laboratory Bul.56.)

1911. The cell content of milk. H. E. Ross. p.775-793. (N.Y.Cornell, Agr.Expt.Sta.Bul.303.)

1912. Production and inspection of milk. E. V. Wilcox. 348 p. (Hawaii Agr.Expt.Sta.[Pub.].)

Milk and cream contests. How to conduct them, and how to prepare samples for competition. Ernest Kelly. 28 p. (U.S.Dept.Agr. Bur.Anim.Indus.Circ.205.)

Rosenau, M. J. The milk question. New York, Houghton Mifflin co. 309 p.

1913. Medical milk commissions and certified milk. Ernest Kelly. 38 p. (U.S.Dept.Agr.Bul.1.)

Larsen, Christian. Dairy technology; a treatise on the city milk supply, milk as a food, ice cream making, by-products of the creamery and cheesery, fermented milks, condensed and evaporated milks, milk powder, renovated butter, and oleomargarine, by C. Larsen and Wm. White. New York, John Wiley & sons, inc. 298 p.

Wing, H. H. Milk and its products; a treatise upon the nature and qualities of dairy milk and the manufacture of butter and cheese. Rev. and enl. New York, The Macmillan co. 433 p.

1914. Cells in milk derived from the udder. R. S. Breed. p.139-200. (N.Y., State, Agr.Expt.Sta.Bul.380.)

Popular ed. A new method of determining milk quality. Summarized by F. H. Hall from bulletins 373 and 380 by J. D. Brew and R. S. Breed. 16 p.

SUBJECT LIST.

DAIRY PRODUCTS.

Milk. (Cont.)

1914. Some improved dairy tests and methods: I. One way to determine the overrun in the making of ice cream. G. H. Benkendorf.-- II. A burette for calibrating Babcock test bottles. G. H. Benkendorf.-- III. A wire cheese curd knife. G. H. Benkendorf and A. T. Bruhn.-- IV. An attachment for the milk sediment tester. A. C. Baer.-- V. Cheese making tests with homogenized milk. J. L. Sammis. 19 p. (Wis.Agr.Expt.Sta.Bul.241.)

Removal of garlic flavor from milk and cream. S. H. Ayers and W. T. Johnson, jr. 4 p. (U.S.Dept.Agr.Farmers' Bul.608.)

The production and care of milk and cream. Dairy Division. 4 p. (U.S.Dept.Agr.Bur.Anim.Indus.[Pub.])

1916. Studies on the creaming ability of milk. B. W. Hammer. p.67-91. (Iowa Agr.Expt.Sta.Res.Bul.31.)

Iowa educational market milk contest. B. W. Hammer and A. J. Hauser. 4 p. (Iowa Agr.Expt.Sta.Circ.30.)

Milk and cream contests. Ernest Kelly, L. B. Cook and J. A. Gamble. 23 p. (U.S.Dept.Agr.Bul.356.) For rev. see Dept.Circ.53.

1917. Stocking, W. A. Manual of milk products. New York, The Macmillan co. 578 p.

1919. Milk and cream contests. Ernest Kelly and G. B. Taylor. 24 p. (U.S.Dept.Agr.Dept.Circ.53.) Rev. of Dept.Bul.356.

Frederiksen, J. D. The story of milk. New York, The Macmillan co. 183 p.

Heinemann, P. G. Milk. Philadelphia, W. B. Saunders co. 684 p.

1922. Motion pictures of the U.S. Department of Agriculture [including films on dairying]. 13 p. (U.S.Dept.Agr.Dept.Circ.233.)

1923. Kelly, Ernest. Market milk, by Ernest Kelly and C. E. Clement. New York, John Wiley & sons, inc. 445 p.

Milk. Bacteria.

1900. The invasion of the udder by bacteria. A. R. Ward. p.259-280. (N.Y., Cornell, Agr.Expt.Sta.Bul.178.)

1901. A bacteriological study of the college creamery milk supply; a case of putrid butter. C. H. Eckles. - Purification of milk by the centrifugal separator. C. H. Eckles and S. E. Barnes. p.37-59. (Iowa Agr.Expt.Sta.Bul.59.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Bacteria. (Cont.)

1901. Further observations upon ropiness in milk and cream. A. R. Ward. p.25-39. (N.Y., Cornell, Agr.Expt.Sta.Bul.195.)

Investigations concerning the germicidal action in cow's milk.
O. F. Hunziker. p.65-86. (N.Y., Cornell, Agr.Expt.Sta.Bul.197.)

1902. Stagnant water germs in milk. E. F. Pernot. p.179-184. (Oreg. Agr.Expt.Sta.Bul.71.)

1903. Infectiveness of milk of cows which have reacted to the tuberculin test. J. R. Mohler. 93 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.44.)

1904. A preliminary note on the associative action of bacteria in the souring of milk and in other milk fermentations. C. E. Marshall. 8 p. (Mich.Agr.Expt.Sta.Spec.Bul.23.)

Additional work upon the associative action of bacteria in the souring of milk and in other milk fermentations. C. E. Marshall. 7 p. (Mich.Agr.Expt.Sta.Spec.Bul.29.)

1905. The so-called "germicidal property" of milk. W. A. Stocking, jr. 20 p. (Conn., Storrs, Agr.Expt.Sta.Bul.37.)

A popular review of Special Bulletin No. 33 on "The associative action of bacteria in the souring of milk." C. E. Marshall. p.197-201. (Mich.Agr.Expt.Sta.Bul.229.)

Extended studies of the associative action of bacteria in the souring of milk. C. E. Marshall. 23 p. (Mich.Agr.Expt.Sta.Spec. Bul.33.) Bul.229 is a review of Spec.Bul.33.

The bacteria of pasteurized and unpasteurized milk under laboratory conditions. L. A. Rogers. 32 p. (U.S.Dept.Agr.Bur.Anim.Indus. Bul.73.)

1908. Sources of bacteria in milk. W. M. Esten and C. J. Mason. p.65-109. (Conn., Storrs, Agr.Expt.Sta.Bul.51.)

Bacterial associations in the souring of milk. C. E. Marshall and B. Ferrand. 63 p. (Mich.Agr.Expt.Sta.Spec.Bul.42.)

Bacteria in milk. L. A. Rogers. p.179-196. (U.S.Dept.Agr.Year-book, 1907, Sep.444.) For rev. see Farmers' Bul.490.

1909. Bacterium lactis acidi and its sources. W. M. Esten. 27 p. (Conn., Storrs, Agr.Expt.Sta.Bul.59.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Bacteria. (Cont.)

1909. Ropy milk in Rhode Island. L. J. Cole and P. B. Hadley. p.129-152.
(R.I.Agr.Expt.Sta.Bul.136.)

The production of clean and sanitary milk: Results of experiments to determine the number of bacteria in milk produced under different conditions; and their significance. W. K. Brainerd. 24 p.
(Va.Agr.Expt.Sta.Bul.185.)

Studies on the bacterial and leucocyte content of milk: Bacterial content of the milk of individual animals. E. G. Hastings and C. Hoffman. --The occurrence and distribution of a lactic acid organism resembling the Bacillus bulgaricus of yogurt. E. G. Hastings and B. W. Hammer. --Experimental leucocytosis in the cow's udder. C. Hoffman. p.189-218. (Wis.Agr.Expt.Sta.Res.Bul.6.)

Bacteria in milk. L. A. Rogers. 24 p. (U.S.Dept.Agr.Farmers'Bul. 348.) For rev. see Farmers' Bul.490.

Milk and its products as carriers of tuberculosis infection. E. C. Schroeder. p.183-199. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.143.)

Russell, H. L. Experimental dairy bacteriology, by H. L. Russell and E. G. Hastings. Boston, Ginn & co. 147 p.

U. S. Hygienic Laboratory. Milk and its relation to the public health. Washington, Gov't. print. off. 834 p. (U.S.Hygienic Laboratory Bul.56.)

1910. The constancy of certain physiological characters in the classification of bacteria. H. A. Harding. 41 p. (N.Y., State, Agr.Expt.Sta. Tech.Bul.13.)

The fermentation of citric acid in milk. A. W. Bosworth and M. J. Prucha. p.42-43. (N.Y., State, Agr.Expt.Sta.Tech.Bul.14.)

The bacteriology of commercially pasteurized and raw market milk. S. H. Ayers and W. T. Johnson, jr. 98 p. (U.S.Dept.Agr.Bur.Anim. Indus.Bul.126.)

The dissemination of disease by dairy products, and methods for prevention. G. L. Magruder [and others]. 57 p. (U.S.Dept.Agr.Bur. Anim.Indus.Circ.153.)

1911. The influence of the products of lactic organisms upon Bacillus typhosus. Zae Northrup. 33 p. (Mich.Agr.Expt.Sta.Tech.Bul.9.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Bacteria. (Cont.)

1911. Milk standards: A study of the bacterial count and dairy score card in city milk inspection. W. K. Brainerd and W. L. Mallory. 20 p. (Va. Agr. Expt. Sta. Bul. 194.)
1912. The influence of certain acid-destroying yeasts upon lactic bacteria. Zae Northrup. 35 p. (Mich. Agr. Expt. Sta. Tech. Bul. 15.)
- Bacteria in milk. L. A. Rogers. 23 p. (U.S. Dept. Agr. Farmers' Bul. 490.) Rev. of Yearbook Sep. 444 and Farmers' Bul. 348.
- Methods of classifying the lactic-acid bacteria. L. A. Rogers and B. J. Davis. 30 p. (U.S. Dept. Agr. Bur. Anim. Indus. Bul. 154.)
- The bacterium of contagious abortion of cattle demonstrated to occur in milk. A. D. Melvin. 3 p. (U.S. Dept. Agr. Bur. Anim. Indus. Circ. 198.)
- Rosenau, M. J. The milk question. New York, Houghton Mifflin co. 309 p.
1913. Open stables versus closed stables for dairy animals. S. S. Buckley.- The bacterial content of milk produced in the open stable and in the closed stable. R. W. Lamson. p. 219-262. (Md. Agr. Expt. Sta. Bul. 177.)
- The effect of certain dairy operations upon the germ content of milk. H. A. Harding, C. L. Ruehle, J. K. Wilson and G. A. Smith. p. 197-233. (N.Y., State, Agr. Expt. Sta. Bul. 365.)
- Popular ed. Some unessential dairy refinements. Summarized by F. H. Hall from bulletin by H. A. Harding [and others]. 8 p.
- A study of the udder flora of cows. H. A. Harding and J. K. Wilson. 40 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 27.)
- A study of the bacteria which survive pasteurization. S. H. Ayers and W. T. Johnson, jr. 66 p. (U.S. Dept. Agr. Bur. Anim. Indus. Bul. 161.)
1914. A bacteriological study of blue milk. B. W. Hammer. p. 467-481. (Iowa Agr. Expt. Sta. Res. Bul. 15.)
- A comparison of the microscopical method and the plate method of counting bacteria in milk. J. D. Brew. 38 p. (N.Y., State, Agr. Expt. Sta. Bul. 373.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Bacteria. (Cont.)

1914. Popular ed. A new method for determining milk quality. Summarized by F. H. Hall from bulletins 373 and 380 by J. D. Brew and R. S. Breed. 16 p.

The origin of some of the streptococci found in milk. L. A. Rogers and A. O. Dahlberg. (U.S.Dept.Agr.Jour.Agr.Res.v.I,no.6,p.491-511.)

Ability of streptococci to survive pasteurization. S. H. Ayers and W. T. Johnson, jr. (U.S.Dept.Agr.Jour.Res.v.II,no.4,p.321-330.)

1915. Bacteriological studies on the coagulation of evaporated milk. B. W. Hammer. p.119-132. (Iowa Agr.Expt.Sta.Res.Bul.19.)

Bacteriological studies on two yellow milk organisms. B. W. Hammer. p.135-150. (Iowa Agr.Expt.Sta.Res.Bul.20.)

Slimy and ropy milk. R. E. Buchanan and B. W. Hammer. p.207-295. (Iowa Agr.Expt.Sta.Res.Bul.22.)

Germ content of stable air and its effect upon the germ content of milk: Methods of bacterial analysis of air; stable air as a source of bacteria in milk. G. L. A. Ruehle and W. L. Kulp. p.419-474. (N.Y., State, Agr.Expt.Sta.Bul.409.)

Popular ed. Milk receives few bacteria from stable air. Summarized by F. H. Hall from bulletin by G. L. A. Ruehle and W. L. Kulp. 12 p.

Ability of colon bacilli to survive pasteurization. S. H. Ayers and W. T. Johnson, jr. (U.S.Dept.Agr.Jour.Agr.Res.v.III,no.5,p.401-410.)

1916. Studies on the formation of gas in milk. B. W. Hammer. 16 p. (Iowa Agr.Expt.Sta.Res.Bul.27.)

Studies on the numbers of bacteria in milk showing various changes. B. W. Hammer and R. H. Hix. p.35-62. (Iowa Agr.Expt.Sta.Res.Bul.29.)

A study of the presence of Bacterium abortus (Bang) in milk. L. H. Cooledge. 37 p. (Mich.Agr.Expt.Sta.Tech.Bul.33.)

Counting bacteria by means of the microscope. R. S. Breed and J. D. Brew. 31 p. (N.Y., State, Agr.Expt.Sta.Tech.Bul.49.)

I, The number of colonies allowable on satisfactory agar plates. R. S. Breed and W. D. Dotterer. -- II, A comparison between agar and gelatin as media for the plate method of counting bacteria. H. J. Conn and W. D. Dotterer. 15 p. (N.Y., State, Agr.Expt.Sta.Tech.Bul.53.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Bacteria. (Cont.)

1916. Some effects of temperature upon the growth and activity of bacteria in milk. H. S. Reed and R. R. Reynolds. 26 p. (Va. Agr. Expt. Sta. Tech. Bul. 10.)

Comparison of the bacterial count of milk with the sediment or dirt test. H. C. Campbell. 7 p. (U.S. Dept. Agr. Bul. 361.)

Agglutination test as a means of studying the presence of Bacterium abortus in milk. L. H. Colledge. (U.S. Dept. Agr. Jour. Agr. Res. v. V, no. 19, p. 871-875.)

1917. Germ content of milk: I, As influenced by the factors at the barn. M. J. Prucha and H. M. Weeter. p. 23-51. (Ill. Agr. Expt. Sta. Bul. 199.)

The number of bacteria in milk. J. D. Brew and W. D. Dotterer. p. 477-522. (N.Y., State, Agr. Expt. Sta. Bul. 439.)

Popular ed. How bacteria in milk are counted. Summarized by F. H. Hall from bulletin by J. D. Brew and W. D. Dotterer. 11 p.

The control of bacteria in market milk by direct microscopic examination. R. S. Breed and J. D. Brew. p. 717-746. (N.Y., State, Agr. Expt. Sta. Bul. 443.)

Popular ed. Using the microscope in milk grading. Summarized by F. H. Hall from bulletin by R. S. Breed and J. D. Brew. 10 p.

1918. Germ content of milk: II, As influenced by the utensils. M. J. Prucha, H. M. Weeter, and W. H. Chambers. p. 217-257. (Ill. Agr. Expt. Sta. Bul. 204.)

Studies upon the bacterial flora of samples of milk with high cellular counts as drawn from apparently normal udders. L. H. Colledge. p. 902-910. (Mich. Agr. Expt. Sta. Tech. Bul. 41.)

Counting bacteria by means of the microscope. R. S. Breed and J. D. Brew.--Practical application of the microscope examination of milk to commercial grading. 11 p. (N.Y., State, Agr. Expt. Sta. Circ. 58.)

The four essential factors in the production of milk of low bacterial content. S. H. Ayers, L. B. Cook and P. W. Clemmer. 63 p. (U.S. Dept. Agr. Bul. 642.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Bacteria. (Cont.)

1918. The significance of the colon count in raw milk. S. H. Ayers and P. W. Clemmer. 35 p. (U.S.Dept.Agr.Bul.739.)

Race, Joseph. The examination of milk for public health purposes. 1st ed. New York, John Wiley & sons, inc. 224 p.

1919. Bacteriological results obtained in practice with vat pasteurization and with one of the final package methods. B. W. Hammer. p.151-158. (Iowa Agr.Expt.Sta.Bul.190.)

The volatile acid production of starters and of organisms isolated from them. B. W. Hammer and D. E. Bailey. p.223-246. (Iowa Agr. Expt.Sta.Res.Bul.55.)

A method for the preliminary detection of abnormal milks. J. C. Baker and L. L. Van Slyke. 14 p. (N.Y., State, Agr.Expt.Sta.Tech.Bul.71.)

The determination of the keeping quality of milk. J. C. Baker and L. L. Van Slyke. 8 p. (N.Y., State, Agr.Expt.Sta.Tech.Bul.72.)

The use of the nitrate-reduction test in characterizing bacteria. H. J. Conn and R. S. Breed. 21 p. (N.Y., State, Agr.Expt.Sta.Tech. Bul.73.)

Relation between lactic acid production and bacterial growth in the souring of milk. J. C. Baker, J. D. Brew and H. J. Conn. 24 p. (N.Y., State, Agr.Expt.Sta.Tech.Bul.74.)

A study of the alkali-forming bacteria found in milk. S. H. Ayers, Philip Rupp and W. T. Johnson, jr. 39 p. (U.S.Dept.Agr.Bul.782.)

Heinemann, P. G. Milk. Philadelphia, W. B. Saunders co. 684 p.

1920. An epidemic of ropy milk. H. A. Harding and M. J. Prucha. p.111-124. (Ill.Agr.Expt.Sta.Bul.228.)

Elimination of germs from dairy utensils: I, By rinsing; II, by drying in sun and air. M. J. Prucha and H. A. Harding. p.139-163. (Ill.Agr.Expt.Sta.Bul.230.) Abstract. 4 p.

Volatile acid production of S. lacticus and the organisms associated with it in starters. B. W. Hammer. p.59-96. (Iowa Agr.Expt.Sta. Res.Bul.63.)

The type of lactic acid produced by starters and by the organisms isolated from them. B. W. Hammer. p.115-128. (Iowa Agr.Expt.Sta. Res.Bul.65.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.

Bacteria. (Cont.)

1920. The accuracy of bacterial counts from milk samples. R. S. Breed and W. A. Stocking, jr. 97 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 75.)
- The reaction of milk in relation to the presence of blood cells and of specific bacterial infections of the udder. J. C. Baker and R. S. Breed. 19 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 80.)
- Russell, H. L. Outlines of dairy bacteriology; a concise manual for the use of students in dairying, by H. L. Russell and E. G. Hastings. 11th ed. Madison, Wis., H. L. Russell. 231 p.
1921. Germ content of milk. III. As influenced by visible dirt. H. A. Harding and M. J. Frucha. p. 363-391. (Ill. Agr. Expt. Sta. Bul. 236.)
- The relation between the volatile and total acidity in starters and in cultures, of S. lacticus. W. A. Cordes and B. W. Hammer. p. 130-136. (Iowa Agr. Expt. Sta. Res. Bul. 66.)
- The colorimetric hydrogen ion determination as a means of studying biological changes in dairy products. L. H. Cooledge. 20 p. (Mich. Agr. Expt. Sta. Tech. Bul. 52.) Spec. Bul. 112 presents practical application of methods described in Tech. Bul. 52.
- An experiment in improving the milk supply of a city milk plant. L. H. Cooledge and O. T. Goodwin. 16 p. (Mich. Agr. Expt. Sta. Spec. Bul. 112.) Spec. Bul. 112 presents practical application of methods described in Tech. Bul. 52.
- The relation between bacterial counts from milk as obtained by microscopic and plate methods. A. H. Robertson. 21 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 36.)
- Variations in bacteria counts from milk as affected by media and incubation temperature. G. C. Supplee, W. A. Whiting and P. A. Downs. p. 221-247. (N.Y., Cornell, Agr. Expt. Sta. Mem. 43.)
- The sporogenes test as an index of the contamination of milk. S. H. Ayers and P. W. Clemmer. 20 p. (U. S. Dept. Agr. Bul. 940.)
1922. Does carbon dioxide in carbonated milk and milk products destroy bacteria? M. J. Frucha, J. M. Brannon, and A. S. Ambrose. 8 p. (Ill. Agr. Expt. Sta. Circ. 256.)
1923. Studies on ropiness in cultures of Streptococcus lactis. B. W. Hammer. p. 259-270. (Iowa Agr. Expt. Sta. Res. Bul. 74.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Bacteria. (Cont.)

1923. American Public Health Association. Standard methods of milk analysis of the American public health association and the Association of official agricultural chemists. 4th ed. New York, American public health association. 40 p.

By-Products.

1907. The pasteurization and the inspection of creamery and cheese factory by-products. E. H. Farrington and E. G. Hastings. 17 p. (Wis. Agr.Expt.Sta.Bul.148.)
1909. Manufacture and marketing of cottage cheese, skim-milk, buttermilk, and ice-cream. John Michels. 11 p. (N.C.Agr.Expt.Sta.Bul.202.) For partial rev.see Bul.210.
1911. Lacto: A new and healthful frozen dairy product. Martin Mortensen and John Gordon. p.269-279. (Iowa Agr.Expt.Sta.Bul.118.)
- Fermented milks. L. A. Rogers. p.133-161. (U.S.Dept.Agr.Bur.Anim. Indus.Circ.171.) Rev.by U.S.Dept.Agr.Bul.319.
1912. Increasing creamery profits by handling special products and utilizing by-products. S. C. Thompson, p.297-306. (U.S.Dept.Agr.Bur. Anim.Indus.Circ.188.)
1913. A method for the improvement of buttermilk from pasteurized cream. LeRoy Lang. 7 p. (Ill.Agr.Expt.Sta.Circ.166.)
- Lacto: A frozen dairy product. Martin Mortensen and B. W. Hammer. p.149-155. (Iowa Agr.Expt.Sta.Bul.140.)
- Larsen, Christian. Dairy technology; a treatise on the city milk supply; milk as a food, ice cream making, by-products of the creamery and cheesery, fermented milks, condensed and evaporated milks, milk powder, renovated butter, and oleomargarine, by C. Larsen and Wm. White. New York, John Wiley & sons, inc. 298 p.
1915. The pasteurization of dairy by-products. W. D. Dotterer and R. S. Breed. p.581-610. (N.Y., State, Agr.Expt.Sta.Bul.412.)
- Popular ed. Why and how pasteurize dairy by-products. Summarized by F. H. Hall from bulletin by W. D. Dotterer and R. S. Breed. 8 p.
1916. Fermented milks. L. A. Rogers. 31 p. (U.S.Dept.Agr.Bul.319.) Rev. of U.S.Dept.Agr.Bur.Anim.Indus.Circ.171.

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
By-Products. (Cont.)

1917. Buttermilk a food drink. Dairy Division. 2 p. (U.S.Dept.Agr.
Bur.Anim.Indus.[Pub.] A.I.22.)

Buttermilk and artificial buttermilk. Dairy Division. 1 p.
(U.S.Dept.Agr.Bur.Anim.Indus.[Pub.]..)

1918. Fermented milk. B. W. Hammer and A. J. Hauser. 4 p. (Iowa Agr.
Expt.Sta.Circ.54.)

Studies relating to milk: I, The preparation of pure casein;
II, a method for making electrometric titrations of milk and
other solutions containing proteins; III, free lactic acid in
sour milk. L. L. Van Slyke and J. C. Baker. 54 p. (N.Y.,
State,Agr.Expt.Sta.Tech.Bul.65.)

The manufacture of casein from buttermilk or skim milk. A. O.
Dahlberg. 32 p. (U.S.Dept.Agr.Bul.661.)

1919. The use of fermented milk and milk diets to control intestinal
putrefaction. R. C. Fisher. p.153-175. (Conn.,Storrs,Agr.
Expt.Sta.Bul.104.)

Good drinks made of milk. Kickless; but full of punch. 8 p.
(U.S.Dept.Agr.Dept.Circ.72.)

Care and Sanitation.

1900. Care of milk for the factory. G. H. True. p.89-92. (Ariz.Agr.
Expt.Sta. Timely Hints for Farmers 10.)

A popular discussion of pure milk supply. C. E. Marshall.
p.173-191.--Cassy curd and cheese. C. E. Marshall. p.193-205.
(Mich.Agr.Expt.Sta.Buls.182-183.)

1901. Domestic pasteurizing methods and the care of milk in the home.
Julius Nelson. 22 p. (N.J.Agr.Expt.Sta.Bul.152.)

1902. Aeration of milk, a popular consideration of Special Bul.16.
C. E. Marshall. p.214-216. (Mich.Agr.Expt.Sta.Bul.201.)

Aeration of milk. C. E. Marshall. 58 p. (Mich.Agr.Expt.Sta.
Spec.Bul.16.)

The care and handling of milk. O. F. Hunziker. 18 p. (N.Y.,
Cornell,Agr.Expt.Sta.Bul.203.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Care and Sanitation. (Cont.)

1903. The relation of temperature to the keeping property of milk. H. W. Conn. 16 p. (Conn., Storrs, Agr. Expt. Sta. Bul. 26.)
- Preventing contamination of milk. W. J. Fraser. p. 221-249. (Ill. Agr. Expt. Sta. Bul. 91.)
- Suggestions concerning the care of milk and butter making on the farm H. E. Van Norman. 36 p. (Ind. Agr. Expt. Sta. Bul. 96.)
- Economical methods for improving the keeping qualities of milk. C. F. Doane. p. 117-164. (Md. Agr. Expt. Sta. Bul. 83.)
1904. Clean milk. W. J. Fraser. 14 p. (Ill. Agr. Expt. Sta. Circ. 73.)
- The care and handling of milk: I, Milk, its purity and its impurity. C. E. Marshall and W. R. Wright.-- II, Practical conditions for the production of milk. John Michels. p. 53-74. (Mich. Agr. Expt. Sta. Bul. 221.)
1905. The discussion of the milk problem from the standpoint of production. C. E. Marshall. p. 137-195. (Mich. Agr. Expt. Sta. Bul. 228.)
- A test of calf rations. A. L. Haecker.--Methods of controlling contamination of milk during milking. A. L. Haecker and C. W. Melick. 18 p. (Nebr. Agr. Expt. Sta. Bul. 87.)
1906. Quality of milk affected common dairy practices. W. A. Stocking, jr. p. 66-90. (Conn., Storrs, Agr. Expt. Sta. Bul. 42.)
- Care of milk on the farm and the manufacture of butter and cheese. R. W. Clark.-- [Canning and paraffining cheese]. R. W. Clark and J. A. Crockett. p. 113-135. (Utah Agr. Expt. Sta. Bul. 96.)
1907. A plan for improving the quality of milk and cream furnished to the New Hampshire creameries. I. C. Weld. p. 59-67. (N.H. Agr. Expt. Sta. Bul. 132.)
- Sanitary relations of the milk supply. 7 p. (U.S. Dept. Agr. Bur. Anim. Indus. Circ. 111.)
- Sanitary milk production. 38 p. (U.S. Dept. Agr. Bur. Anim. Indus. Circ. 114.)
1908. Handling and marketing milk and cream. John Michels. 24 p. (N.C. Agr. Expt. Sta. Bul. 193.)
- The care of milk on the farm. I. P. Whitney. 4 p. (Wash. Agr. Expt. Sta. Pop. Bul. 12.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.

Care and Sanitation. (Cont.)

1908. Bacteria in milk and artificial refrigeration for dairymen. J. H. Stewart and Horace Atwood. p.53-53. (W.Va.Agr.Expt.Sta.Bul. 111.)

1909. Some important factors in the production of sanitary milk. E. H. Webster. p.161-173. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.142.)

Winslow; Kenelm. The production and handling of clean milk, including practical milk inspection, by Kenelm Winslow and--Essentials of milk bacteriology, by H. W. Hill. 2d ed. New York, W. R. Jenkins co. 207 p.

1910. Clean milk: Essential requirements from production to consumption. C. H. Yates and R. E. Brand. 36 p. (Ill.Agr.Expt.Sta.Circ.147.)

Improved methods for the production of market milk by ordinary dairies. C. B. Lane and K. E. Parks. 12 p. (U.S.Dept.Agr.Bur. Anim.Indus.Circ.153.)

1911. Experiments in the production of sanitary milk. Horace Atwood and N. J. Giddings. p.83-105. (W.Va.Agr.Expt.Sta.Bul.134.)

The extra cost of producing clean milk. G. M. Whitaker. p.119-131. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.170.)

1912. Care of milk in the home. B. R. Rickards and H. N. Parker. 6 p. (Ill.Agr.Expt.Sta.Circ.162.)

Care of milk and cream on the farm. J. H. Franzen. 12 p. (Nebr. Agr.Expt.Sta.Bul.133.)

The care of milk and its use in the home. G. M. Whitaker, L. A. Rogers and C. L. Hunt. Reprint with additions. 20 p. (U.S. Dept.Agr.Farmers' Bul.413.) 1st ed., 1910.

1913. Cleanliness and cold as applied to the dairy. A. B. Nystrom. 8 p. (Wash.Agr.Expt.Sta.Pop.Bul.55.)

1914. Inexpensive aids in producing sanitary milk. R. W. Lamson. p.125-154. (Md.Agr.Expt.Sta.Bul.181.)

Care of milk in the home. S. C. Dinsmore. 2 p. (Nev.Agr.Expt. Sta.Circ.19.)

The application of refrigeration to the handling of milk. J. T. Bowen. 33 p. (U.S.Dept.Agr.Bul.98.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.

Care and Sanitation. (Cont.)

1915. Milk quality as determined by present dairy score cards. J. D. Brew. p.107-132. (N.Y., State, Agr. Expt. Sta. Bul. 398.)
- Popular ed. Do low scores always mean poor milk? Summarized by F. H. Hall from bulletin by J. D. Brew. 11 p.
- Ice houses and the use of ice on the dairy farm. J. T. Bowen and G. M. Lambert. 24 p. (U.S. Dept. Agr. Farmers' Bul. 623.) For rev. see Farmers' Bul. 1078.
- Illustrated lecture on the production of clean milk. Ernest Kelly. 18 p. (U.S. Dept. Agr. Syllabus 18.)
1916. Studies on the clarification of milk. B. W. Hammer. p.19-32. (Iowa Agr. Expt. Sta. Res. Bul. 28.)
1917. Factors of importance in producing milk of low bacterial count. C. L. Roadhouse. 11 p. (Calif. Agr. Expt. Sta. Circ. 179.)
- What is meant by "quality" in milk. H. A. Harding, R. S. Breed, W. A. Stocking, jr., and E. G. Hastings. 16 p. (Ill. Agr. Expt. Sta. Circ. 205.) Issued also as N.Y., State, Agr. Expt. Sta. Bul. 433.
- Factors and methods in the profitable production of sanitary milk: I, Practical means of controlling bacterial infection of milk; II, experimental study of conditions affecting the contamination of milk. W. D. Nicholls. 43 p. (Ky. Agr. Expt. Sta. Bul. 206.)
- Clarification of milk. T. J. McInerney. p.437-504. (N.Y., Cornell, Agr. Expt. Sta. Bul. 339.)
- What is meant by "quality" in milk. R. S. Breed, H. A. Harding, W. A. Stocking, jr. and E. G. Hastings. p.457-475. (N.Y., State, Agr. Expt. Sta. Bul. 438.) Issued also as Ill. Agr. Expt. Sta. Circ. 205.
- Ten suggestions for milk consumers. Dairy Division. 1 p.. (U.S. Dept. Agr. Bur. Anim. Indus. [Pub.].)
- Klein, L. A. Principles and practice of milk hygiene. Philadelphia, J. B. Lippincott co. 329 p.
- MacNutt, J. S. The modern milk problem in sanitation, economics, and agriculture. New York, The Macmillan co. 258 p.
1918. Studies in processing milk. H. F. Judkins and P. A. Downs. p.449-470. (Conn., Storrs, Agr. Expt. Sta. Bul. 99.)

SUBJECT LIST:

DAIRY PRODUCTS. Milk.

Care and Sanitation. (Cont.)

1918. Studies on the clarification of milk, II. B. W. Hamner and A. J. Hauser. p.79-97. (Iowa Agr.Expt.Sta.Res.Bul.47.)
- Clarification of milk, Part I. C. E. Marshall [and others]. p.155-242. (Mass.Agr.Expt.Sta.Bul.187.) Pt.2 published in Jour. Dairy Science, 3(1920), no.4, p.245-259.
- The four essential factors in the production of milk of low bacterial content. S. H. Ayers, L. B. Cook and P. W. Clemmer. 63 p. (U.S.Dept.Agr.Bul.642.)
- Turn cold into gold. Dairy Division. Folder. (U.S.Dept.Agr.Bur. Anim.Indus.[Pub.] D.D.581.)
- North, C. E. Farmers' clean milk book. 1st ed. New York, John Wiley & sons, inc. 132 p.
1919. Cooling milk and storing and shipping it at low temperatures. J. A. Gamble and J. T. Bowen. 28 p. (U.S.Dept.Agr.Bul.744.)
- Production of clean milk. Ernest Kelly. 22 p. (U.S.Dept.Agr. Farmers' Bul.602, rev.) 1st ed., 1914.
- Straining milk. Ernest Kelly and J. A. Gamble. 16 p. (U.S.Dept. Agr.Farmers' Bul.1019.)
1920. The production of clean milk at the Kentucky Agricultural Experiment Station. J. J. Hooper and J. W. Nutter. 15 p. (Ky.Agr. Expt.Sta.Circ.24.)
- How teachers may use Farmers' Bulletin 602, Clean milk: Production and handling. Alvin Dille. 6 p. (U.S.Dept.Agr.Dept.Circ. 67.)
- Harvest a crop in midwinter, [ice]. Dairy Division. Folder. (U.S.Dept.Agr.Bur.Anim.Indus.[Pub.] D.D.608.)
1921. The production of clean milk. R. N. Davis. 12 p. (Ariz.Agr.Expt. Sta.Circ.37.)
- Milk for midshipment. Ernest Kelly. p.463-470. (U.S.Dept.Agr. Yearbook, 1920, Sept.857.)
- Mortensen, Martin. Management of dairy plants. New York, The Macmillan co. 358 p.

SUBJECT LIST.

DAIRY PRODUCTS. Milk.

Care and Sanitation. (Cont.)

1922. Cooling milk^{and} cream on the farm. J. A. Gamble. 16 p. (U.S. Dept. Agr. Farmers' Bul. 976, rev.) 1st ed., 1918.

Harvesting and storing ice on the farm. J. T. Bowen. 31 p. (U.S. Dept. Agr. Farmers' Bul. 1078, rev.) 1st ed., 1920. Rev. of Farmers' Bul. 623

Clean milk is easily produced by following a few simple rules. Dairy Division. Folder. (U.S. Dept. Agr. Bur. Anim. Indus. [Pub.] D.D. 624.)

1923. Kelly, Ernest. Market milk, by Ernest Kelly and C. E. Clement. New York, John Wiley & sons, inc. 445 p.

Bulletin of the Associated Milk Producers. San Francisco, Calif. Monthly.

Dairymen's League News. Utica, N. Y. Weekly. \$1.00.

Inter-State Milk Producers Review. Philadelphia, Pa. Monthly. \$.50

Milk News. Chicago, Ill. Monthly. \$.75, 3 years, \$1.50.

Pacific Dairy Review. San Francisco, Calif. Weekly. \$1.00; Canada, \$1.50; Foreign, \$2.00.

Chemistry.

1900. The use of chemical preservatives in milk. G. H. True. p. 245-248. (Ariz. Agr. Expt. Sta. Timely Hints for Farmers 21.)

1902. A study of some of the salts formed by casein and paracasein with acids: Their relations to American cheddar cheese. L. L. Van Slyke and E. B. Hart. p. 53-79. (N.Y., State, Agr. Expt. Sta. Bul. 214.)

Popular ed. Some changes in a ripening cheese. F. H. Hall, L. L. Van Slyke, H. A. Harding, and E. B. Hart. 14 p. (N.Y., State, Agr. Expt. Sta. Buls. 214, 215, 219, 231, 233, 236, 257.)

1905. The action of formaldehyde in the preservation of milk. F. D. Chester and T. R. Brown. 36 p. (Del. Agr. Expt. Sta. Bul. 71.)

Some of the relations of casein and paracasein to bases and acids, and their application to cheddar cheese. L. L. Van Slyke and E. B. Hart. 37 p. (N.Y., State, Agr. Expt. Sta. Bul. 261.)

1906. The action of dilute acids upon casein when no soluble compounds are formed; the hydrolysis of the sodium salts of casein. L. L. Van Slyke and D. D. Van Slyke. p. 75-162. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 3.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Chemistry. (Cont.)

1907. Effect of treating milk with carbon dioxide gas under pressure. L. L. Van Slyke and A. W. Bosworth. p.371-384. (N.Y., State, Agr. Expt. Sta. Bul. 292.)
- Popular ed. Carbonated milk. Summarized by F. H. Hall from bulletin by L. L. Van Slyke and A. W. Bosworth. 4 p.
- Chloroform as an aid in the study of milk enzymes. H. A. Harding and L. L. Van Slyke. p.41-82. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 6.)
- A simple test for casein in milk and its relation to the dairy industry. E. B. Hart. 22 p. (Wis. Agr. Expt. Sta. Bul. 156.)
1909. The estimation of fat in unsweetened evaporated milk by modified methods. O. F. Hunziker and G. W. Spitzer. p.591-651. (Ind. Agr. Expt. Sta. Bul. 134.)
- A volumetric method for the determination of casein in milk. L. L. Van Slyke and A. W. Bosworth. p.231-249. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 10.)
- A chemical and physical study of the large and small fat globules in cows' milk. R. H. Shaw and C. H. Eckles. 16 p. (U.S. Dept. Agr. Bur. Anim. Indus. Bul. 111.)
1910. Some improved methods of dairy chemistry analysis: I, A volumetric method for the estimation of casein in cows' milk. E. B. Hart.-- II, The quantitative estimation of lactic acid in cheddar cheese. S. K. Suzuki and E. B. Hart.-- III, The relation of different acids to the precipitation of casein and the solubility of cheese curds in salt solutions. J. L. Sammis and E. B. Hart. p.107-125. (Wis. Agr. Expt. Sta. Res. Bul. 10.)
1911. The estimation of total solids in milk by the use of formulas. R. H. Shaw and C. H. Eckles. 31 p. (U.S. Dept. Agr. Bur. Anim. Indus. Bul. 134.)
1912. Composition and properties of some casein and paracasein compounds and their relations to cheese. L. L. Van Slyke and A. W. Bosworth. 32 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 26.)
- "Mony meikles mak a muckle"; Studies of the rennet coagulation of milk. R. M. Washburn and A. P. Bigelow.-- The control of the moisture content of butter. C. L. Beach, A. P. Bigelow and R. H. Allen.-- A bacterial infection of condensed milk. L. A. Thayer.-- The value of the escutcheon in judging dairy cattle. C. F. Moran.-- Mock silage. C. L. Beach. p.120-127. (Vt. Agr. Expt. Sta. Bul. 170.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Chemistry. (Cont.)

1913. The specific heat of milk derivatives. B. W. Hammer and A. R. Johnson. p.451-463. (Iowa Agr.Expt.Sta.Res.Bul.14.)

The action of rennin on casein. A. W. Bosworth. 7 p. (N.Y., State, Agr.Expt.Sta.Tech.Bul.31.)

The influence of the stage of lactation on the composition and properties of milk. C. H. Eckles and R. H. Shaw. 83 p. (U.S.Dept. Agr.Bur.Anim.Indus.Bul.155.)

The influence of breed and individuality on the composition and properties of milk. C. H. Eckles and R. H. Shaw. 27 p. (U.S.Dept. Agr.Bur.Anim.Indus.Bul.156.)

Variations in the composition and properties of milk from the individual cow. C. H. Eckles and R. H. Shaw. 27 p. (U.S.Dept.Agr. Bur.Anim.Indus.Bul.157.)

Chemical changes produced in cows' milk by pasteurization. Philip Rupp. 15 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.166.)

Van Slyke, L. L. Modern methods of testing milk and milk products; a handbook prepared for the use of dairy students, butter makers, cheese makers, producers of milk, operators in condenseries, managers of milk-shipping stations, milk-inspectors, physicians, etc. 2d rev. ed. New York, Orange Judd publishing co. 286 p.

1914. The physical character of the curd of milk from different breeds; curd as an index of the food value of milk; studies of the proteid content of milk. S. S. Buckley. p.227-242. (Mo.Agr.Expt.Sta.Bul.184.)

Carotin, the principal natural yellow pigment of milk fat: I, Review of the literature concerning the yellow plant and animal pigments. L. S. Palmer and C. H. Eckles. p.311-336. (Mo.Agr.Expt.Sta.Res. Bul.9.)

Carotin, the principal natural yellow pigment of milk fat: II, Chemical and physiological relations of pigments of milk fat to the carotin and xanthophylls of green plants. L. S. Palmer and C. H. Eckles. p.337-387. (Mo.Agr.Expt.Sta.Res.Bul.10.)

Carotin, the principal natural yellow pigment of milk fat: III, The pigments of the body fat, corpus luteum and skin secretions of the cow. L. S. Palmer and C. H. Eckles. p.389-411. (Mo.Agr.Expt.Sta. Res.Bul.11.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Chemistry. (Cont.)

1914. Carotin, the principal natural yellow pigment of milk fat: IV, (A) The yellow pigment of blood serum; (B) carotin and xanthophylls during digestion; (C) the pigments of human milk fat. L. S. Palmer and C. H. Eckles. p.413-450. (Mo.Agr.Expt.Sta.Res.Bul. 12.)

Lactochrome, the yellow pigment of milk whey: Its probable identity with urochrome, the specific yellow pigment of normal urine. L. S. Palmer and L. H. Cooledge. p.451-487. (Mo.Agr.Expt.Sta.Res.Bul. 13.)

Preparation, composition and properties of caseinates of magnesium. L. L. Van Slyke and O. B. Winter. 7 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 33.)

- I, Why sodium citrate prevents curdling of milk by rennin. A. W. Bosworth and L. L. Van Slyke. II, The use of sodium citrate for the determination of reverted phosphoric acid. A. W. Bosworth. 12 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 34.)

Studies relating to the chemistry of milk and casein: I, The cause of acidity of fresh milk of cows and a method for determination of acidity. L. L. Van Slyke and A. W. Bosworth. II, The phosphorus content of casein. A. W. Bosworth and L. L. Van Slyke. III, The action of rennin on casein. (Second paper). A. W. Bosworth. 11 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 37.)

Condition of casein and salts in milk. L. L. Van Slyke and A. W. Bosworth. 17 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 39.)

Studies in the expansion of milk and cream. H. W. Bearce. (U.S. Dept. Agr. Jour. Agr. Res. v. III, no. 3, p. 251-268.)

1916. Influence of plane of nutrition of the cow upon the composition and properties of milk and butter fat: Influence of overfeeding. C. H. Eckles and L. S. Palmer. 35 p. (Mo. Agr. Expt. Sta. Res. Bul. 24.)

Influence of plane of nutrition of the cow upon the composition and properties of milk and butter fat: Influence of underfeeding. C. H. Eckles and L. S. Palmer. 107 p. (Mo. Agr. Expt. Sta. Res. Bul. 25.)

Chemical changes in the souring of milk. L. L. Van Slyke and A. W. Bosworth. 12 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 48.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Chemistry. (Cont.)

1916. Determination of stearic acid in butter fat. E. B. Holland, J. C. Reed and J. P. Buckley, jr. (U.S.Dept.Agr.Jour.Agr.Res.v.VI,no.3, p.101-113.)
- Effect of water in the ration on the composition of milk. W. F. Turner [and others]. (U.S.Dept.Agr.Jour.Agr.Res.v.VI,no.4,p.167-173.)
1917. A rapid volumetric method for approximate estimation of chlorine in milk. B. W. Hammer and D. E. Bailey. p.337-348. (Iowa Agr.Expt. Sta.Res.Bul.41.)
- Detection of lime used as a neutralizer in dairy products. H. J. Wichmann. 23 p. (U.S.Dept.Agr.Bul.524.)
- Enzymes of milk and butter. R. W. Thatcher and A. C. Dahlberg. (U.S. Dept.Agr.Jour.Agr.Res.v.XI,no.9,p.437-450.)
- Influence of the age of the cow on the composition and properties of milk and milk fat. C. H. Eckles and L. S. Palmer. (U.S.Dept.Agr. Jour.Agr.Res.v.XI,no.12,p.645-658.)
1918. Variations in the fat, solids-not-fat, and total solids in cow's milk. G. C. White and H. F. Judkins. p.251-307. (Conn., Storrs, Agr.Expt. Sta.Bul.94.)
- Studies relating to milk: I, The preparation of pure casein; II, a method for making electrometric titrations of milk and other solutions containing proteins; III, free lactic acid in sour milk. L. L. Van Slyke and J. C. Baxter. 54 p. (N.Y., State, Agr.Expt.Sta. Tech.Bul.65.)
- Determination of fatty acids in butter fat: I. E. B. Holland and J. P. Buckley, jr. (U.S.Dept.Agr.Jour.Agr.Res.v.XII,no.11,p.719-732.)
- Correlation between the percentage of fat in cow's milk and the yield. Elmer Roberts. (U.S.Dept.Agr.Jour.Agr.Res.v.XIV,no.2,p.67-96.)
- Farrington, E. H. Testing milk and its products; a manual for dairy students, creamery and cheese factory operators, food chemists, and dairy farmers, by E. H. Farrington and F. W. Woll. 24th rev.and enl.ed. Madison, Wis., Mendota book co. 297 p.
- Race, Joseph. The examination of milk for public health purposes. 1st ed. New York, John Wiley & sons, inc. 224 p.

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Chemistry. (Cont.)

1919. Carbonic acid and carbonates in cow's milk. L. L. Van Slyke and J. C. Baker. 9 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 69.)

Conditions causing variation in the reaction of freshly-drawn milk. L. L. Van Slyke and J. C. Baker. 9 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 70.)

The preservation of milk for chemical analysis. L. S. Palmer and L. H. Cooledge. 31 p. (Mo. Agr. Expt. Sta. Res. Bul. 34.)

Heinemann, P. G. Milk. Philadelphia, W. B. Saunders co. 684 p.

1920. The carbon dioxide content as a basis for distinguishing heated from unheated milk. L. L. Van Slyke and R. F. Keeler. 7 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 78.)

The reaction of milk in relation to the presence of blood cells and of specific bacterial infections of the udder. J. C. Baker and R. S. Breed. 19 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 80.)

1921. A method for determining adulterants in butterfat. George Spitzer and W. E. Epple. 16 p. (Ind. Agr. Expt. Sta. Bul. 254.)

The colorimetric hydrogen ion determination as a means of studying biological changes in dairy products. L. H. Cooledge. 20 p. (Mich. Agr. Expt. Sta. Tech. Bul. 52.) Spec. Bul. 112 presents practical application of methods described in Tech. Bul. 52.

An experiment in improving the milk supply of a city milk plant. L. H. Cooledge and O. T. Goodwin. 16 p. (Mich. Agr. Expt. Sta. Spec. Bul. 112.) Spec. Bul. 112 presents practical application of methods described in Tech. Bul. 52.

Troy, H. C. Dairy laboratory exercises on testing and composition of dairy products, by H. C. Troy and T. J. McInerney. 1st ed. Ithaca, N. Y., Ithaca publishing co. 166 p.

1922. The detection of hypochlorites and chloramins in milk and cream. Philip Rupp. 5 p. (U.S. Dept. Agr. Bul. 1114.)

Mojonnier, Timothy. The technical control of dairy products; a treatise on the testing, analyzing, standardizing and the manufacture of dairy products. By Timothy Mojonnier and H. C. Troy. 1st ed. Chicago, Ill., Mojonnier Bros. co., Milk Engineers. 909 p.

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Chemistry. (Cont.)

1923. Simplified apparatus and technique for the electrometric determination of hydrogen ion concentration in milk and other biological liquids. F. E. Rice and A. J. Rider. 16 p. (N.Y., Cornell, Agr. Expt. Sta. Mem. 66.)

American Public Health Association. Standard methods of milk analysis of the American public health association and Association of official agricultural chemists. 4th ed. New York, American public health association. 40 p.

Economics.

1900. Investigation in milk production; feeding dairy cows. T. L. Haecker. p. 333-556. (Minn. Agr. Expt. Sta. Bul. 67.)
1904. The relative profits of selling milk, cream, and butter. C. F. Doane. p. 45-56. (Md. Agr. Expt. Sta. Bul. 97.)
1905. The discussion of the milk problem from the standpoint of production. C. E. Marshall. p. 187-195. (Mich. Agr. Expt. Sta. Bul. 228.)
1908. Co-operative dairy investigations by the Georgia Experiment Station and the Dairy Division, United States Department of Agriculture. P. M. Flint and J. E. Dorman. p. 143-172. (Ga. Agr. Expt. Sta. Bul. 80.)
- Methods of paying for milk at cheese-factories. L. L. Van Slyke. p. 469-506. (N.Y., State, Agr. Expt. Sta. Bul. 308.)
- Popular ed. Paying for milk at cheese-factories. Summarized by F. H. Hall from bulletin by L. L. Van Slyke. 7 p.
- Home-grown rations in economical production of milk and butter. J. N. Price. p. 31-50. (Tenn. Agr. Expt. Sta. Bul. 80.)
1909. Milk production. J. M. Scott. 10 p. (Fla. Agr. Expt. Sta. Bul. 99.)
1911. Four systems of dairy farming and the profit of each. W. J. Fraser and R. E. Brand. 24 p. (Ill. Agr. Expt. Sta. Circ. 151.)
- The cost of Minnesota dairy products. T. P. Cooper. p. 89-188. (Minn. Agr. Expt. Sta. Bul. 124.)
- The extra cost of producing clean milk. G. M. Whitaker. p. 119-131. (U.S. Dept. Agr. Bur. Anim. Indus. Circ. 170.)
1912. The feed unit system for determining the economy of production by dairy cows. F. W. Woll. 15 p. (Wis. Agr. Expt. Sta. Circ. of Inform. 37.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Economics. (Cont.)

1913. Detecting dairy losses. L. M. Davis. 2 p. (Calif.Agr.Expt.Sta. Circ.95.)
- Increasing dairy profits. H. E. Van Norman. 1 p. (Calif.Agr. Expt.Sta.Circ.97.)
- Milk production, II. J. M. Scott. p.63-76. (Fla.Agr.Expt.Sta. Bul.114.)
- Record of the station dairy herd and the cost of milk production. J. B. Lindsey. 31 p. (Mass.Agr.Expt.Sta.Bul.145.)
- The financial stimulus in city milk production. H. A. Harding and J. D. Brew. p.165-178. (N.Y., State, Agr.Expt.Sta.Bul.363.)
- Popular ed. The price control factor in the pure milk problem. Summarized by F. H. Hall from bulletin by H. A. Harding and J. D. Brew. 8 p.
1915. Economic feeding for milk production in New Mexico. Luther Foster and R. W. Latta. 34 p. (N.Mex.Agr.Expt.Sta.Bul.98.)
- The cost of milk production. H. A. Hopper and F. E. Robertson. p.135-162. (N.Y., Cornell, Agr.Expt.Sta.Bul.357.)
- Cost of producing milk on 174 farms in Delaware County, New York. A. L. Thompson. p.111-179. (N.Y., Cornell, Agr.Expt.Sta.Bul.364.)
- The effect of the cattle tick upon the milk production of dairy cows. T. E. Woodward, W. F. Turner and Cooper Curtice. 22 p. (U.S.Dept.Agr.Bul.147.)
1916. Studies in the cost of market milk production. A. C. Anderson and F. T. Riddell. 38 p. (Mich.Agr.Expt.Sta.Bul.277.)
- Eckles, C. H. Dairy farming, by C. H. Eckles and G. F. Warren. New York, The Macmillan co. 309 p.
1917. Progress report on the production and distribution of milk. Elwood Mead. 16 p. (Calif.Agr.Expt.Sta.Circ.175.)
- The cost of distributing milk in six cities and towns in Massachusetts. A. E. Cance and R. H. Ferguson. 54 p. (Mass.Agr.Expt. Sta.Bul.173.)
- Farm profits and factors influencing farm profits on 284 general and 75 dairy farms in Monmouth County, New Jersey. Frank App. 89 p. (N.J.Agr.Expt.Sta.Bul.312.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Economics. (Cont.)

1917. Farm profits and factors influencing farm profits on 460 dairy farms in Sussex County, N. J. Frank App. 111 p. (N.J.Agr.Expt.Sta. Bul.320.)
- Cost of milk production: Cost accounts show expenses for veals, calves, heifers and cows. (Ohio Agr.Expt.Sta.Monthly Bul.v.II, no.6,p.193-197.)
- Economy of production by dairy cows: A comparison of large and small cows in milk yield. R. I. Grady. (Ohio Agr.Expt.Sta.Monthly Bul. v.II,no.10,p.334-338.)
- Nutrients returned by dairy cows: Stage of lactation and individuality affect cost of milk production. R. I. Grady. (Ohio Agr. Expt.Sta.Monthly Bul.v.II,no.11,p.365-369.)
- "Mony meikles mak a muckle", II: The relation of the milk-vein system to production. A. W. Aldrich and J. W. Dana.-- The cost of production of milk and butterfat in 1911 and 1912. G. M. Nelson.-- The effect of the sire on the herd. J. H. Wilson.-- Concerning the Burlington milk supply. J. E. Carrigan and W. T. Abell. 47 p. (Vt.Agr.Expt.Sta.Bul.202.)
- The cost of producing market milk in 1916-17 on 212 Vermont farms. G. F. E. Story and W. J. Tubbs. 24 p. (Vt.Agr.Expt.Sta.Bul.209.)
- Correct payment for cheese factory milk by the Babcock test. J. L. Sammis. 42 p. (Wis.Agr.Expt.Sta.Bul.276.)
- A study in the cost of producing milk on four dairy farms, located in Wisconsin, Michigan, Pennsylvania, and North Carolina. M. O. Cooper, C. M. Bennett and L. M. Church. 35 p. (U.S.Dept.Agr.Bul. 501.)
- The business of ten dairy farms in the bluegrass region of Kentucky. J. H. Arnold. 12 p. (U.S.Dept.Agr.Bul.543.)
- MacNutt, J. S. The modern milk problem in sanitation, economics, and agriculture. New York, The Macmillan co. 253 p.
- Washburn, R. M. Productive dairying. Philadelphia, J. B. Lippincott co. 432 p.
1918. The relation of size of dairy to economy of milk production. J. A. Hopkins, jr. 50 p. (Del.Agr.Expt.Sta.Bul.113.)
- Profitable dairy-farm organization in Kentucky. W. D. Nicholls and J. B. Hutson. p.97-146. (Ky.Agr.Expt.Sta.Bul.217.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Economics. (Cont.)

1918. The cost of milk production: I, Factors of cost; II, application of the factors in determining the cost of milk at Northfield, Halsted, and Cokato. F. W. Peck and Andrew Boss. 36 p. (Minn. Agr.Expt.Sta.Bul.173.)
- Milk production costs and milk prices. R. M. Green, D. C. Wood and A. C. Ragsdale. 36 p. (Mo.Agr.Expt.Sta.Bul.156.)
- Profits from milk cows on general cornbelt farms. C. R. Johnson and R. M. Green. 20 p. (Mo.Agr.Expt.Sta.Bul.159.)
- How to determine the cost of milk, [I]. Department of Dairy Husbandry. (Ohio Agr.Expt.Sta.Monthly Bul.v.III,no.12,p.363-366.)
1919. The cost of milk production computed on the year basis. F. A. Pearson. p.343-364. (Ill.Agr.Expt.Sta.Bul.216.)
- The seasonal cost of milk production. F. A. Pearson. 18 p. (Ill. Agr.Expt.Sta.Bul.224.)
- Dairy production in Ohio. R. I. Grady and M. O. Bugby. p.507-541. (Ohio Agr.Expt.Sta.Bul.334.)
- How to determine the cost of milk, II. Department of Dairy Husbandry. (Ohio Agr.Expt.Sta.Monthly Bul.v.IV,no.1,p.17-21.)
- Dairy farming in southeastern Pennsylvania. G. A. Billings. 42 p. (Pa.Agr.Expt.Sta.Bul.159.)
1920. Studies in the cost of milk production, 2. F. T. Riddell and A. C. Anderson. 37 p. (Mich.Agr.Expt.Sta.Bul.286.)
- The organization and management of farms in northwestern Pennsylvania. An analysis of the business of 422 farms in the vicinity of Grove City, Pa. E. D. Strait and H. M. Dixon. 32 p. (U.S. Dept.Agr.Bul.353.)
- Requirements and cost of producing market milk in northwestern Indiana. J. B. Bain and R. J. Posson. 31 p. (U.S.Dept.Agr. Bul.858.)
- Unit requirements for producing milk in western Washington, J. B. Bain and G. E. Braun. 19 p. (U.S.Dept.Agr.Bul.919.)
- King, C. L. The price of milk. Philadelphia, John C. Winston co. 336 p.

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Economics. (Cont.)

1921. The cost of producing milk. H. B. Munger. p.339-352. (Iowa Agr. Expt.Sta.Bul.197.)

Unit requirements for producing market milk in Vermont. J. B. Bain, R. J. Posson and R. P. Hotis. 18 p. (U.S.Dept.Agr.Bul.923.)

Unit requirements for producing market milk in southeastern Louisiana. J. B. Bain, G. E. Braun and W. D. Wood. 15 p. (U.S.Dept.Agr.Bul. 955.)

Unit requirements for producing market milk in eastern Nebraska. J. B. Bain, G. E. Braun and E. A. Gannon. 16 p. (U.S.Dept.Agr.Bul.972.)

Cows that make the income climb. J. C. McDowell. p.401-412. (U.S. Dept.Agr.Yearbook, 1920, Sep.853.)

1922. An economic study of dairying on 149 farms in Broome County, New York. E. G. Misner. p.271-443. (N.Y., Cornell, Agr.Expt.Sta.Bul.409.)

The cost of producing milk, and dairy farm organization in western Washington. George Severance and E. R. Johnson. 50 p. (Wash. Agr.Expt.Sta.Bul.173.)

Relation of production to income from dairy cows. J. C. McDowell. 20 p. (U.S.Dept.Agr.Bul.1069.)

Influence of season of freshening on production and income from dairy cows. J. C. McDowell. 10 p. (U.S.Dept.Agr.Bul.1071.)

Unit requirements for producing market milk in Delaware. J. B. Bain And R. P. Hotis. 16 p. (U.S.Dept.Agr.Bul.1101.)

1923. The feed cost of milk and fat production as related to yields. H. A. Ross, H. F. Hall, and C. S. Rhode. p.553-573. (Ill.Agr.Expt.Sta. Bul.244.)

Cost of milk production on forty-eight Wisconsin farms. S. W. Mendum. 23 p. (U.S.Dept.Agr.Bul.1144.)

Food Value.

1901. The comparative digestibility of raw, pasteurized and cooked milk. C. F. Doane and T. M. Price. 33 p. (Md.Agr.Expt.Sta.Bul.77.)

1902. The influence of preservatives upon the food value of milk. C. F. Doane and T. M. Price. p.15-64. (Md.Agr.Expt.Sta.Bul.86.)

1904. The food value of a pound of milk solids in milk poor and rich in fat-contents. C. L. Beach. 15 p. (Conn., Storrs, Agr.Expt.Sta.Bul.31.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Food Value. (Cont.)

1909. The use of milk as food. R. D. Milner. 44 p. (U.S.Dept.Agr. Farmers' Bul.363.)
1914. The physical character of the curd of milk from different breeds; curd as an index of the food value of milk; studies of the proteid content of milk. S. S. Buckley. p.227-242. (Md.Agr.Expt. Sta.Bul.184.)
1916. Studies of the values of different grades of milk in infant feeding. R. M. Washburn and C. H. Jones. 134 p. (Vt.Agr.Expt.Sta.Bul. 195.) For popular ed. see Bul.201.
- Value of different grades of milk in infant feeding. R. M. Washburn and C. H. Jones. 32 p. (Vt.Agr.Expt.Sta.Bul.201.) A popular ed. of Bul.195.
1917. Milk as a food. Dairy Division. 2 p. (U.S.Dept.Agr.Bur.Anim.Indus. [Pub.] A.I.27.)
- How to use skim milk. Dairy Division. 1 p. (U.S.Dept.Agr.Bur.Anim. Indus.[Pub.])
1918. Milk necessary for the nation's welfare. E. B. Hart and Harry Steenbock. 20 p. (Wis.Agr.Expt.Sta.Bul.291.)
- Skim milk for human food. Dairy Division. 2 p. (U.S.Dept.Agr.Bur. Anim.Indus.[Pub.] A.I.31.)
- Milk is a food. Dairy Division. 1 p. (U.S.Dept.Agr.Bur.Anim.Indus. [Pub.])
1919. Economy in feeding the family: V, Condensed milk, malted milk, milk powders. J. P. Street. p.399-407. (Conn.,State,Agr.Expt.Sta. Bul.213.)
- Economy in feeding the family: The food value of milk. Edna L. Ferry. 31 p. (Conn.,State,Agr.Expt.Sta.Bul.215.)
- The use of fermented milk and milk diets to control intestinal putrefaction. R. C. Fisher. p.153-175. (Conn.,Storrs,Agr.Expt.Sta. Bul.104.)
- Delicious products of the dairy. J. C. McDowell. 12 p. (U.S.Dept. Agr.Dept.Circ.26,rev.) 1st ed., 1918.
1921. Milk and its uses in the home. Prepared in the Office of home economics, with the cooperation of the Dairy division, Bureau of animal industry. 34 p. (U.S.Dept.Agr.Farmers' Bul.1207.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Food Value. (Cont.)

1922. Milk the best food. H. Steenbock and E. B. Hart. 19 p. (Wis.Agr. Expt.Sta.Bul.342.)
- Milk for the family. 4 p. (U.S.Dept.Agr.Dept.Circ.129,rev.) 1st ed. 1920.
1923. Educational milk-for-health campaigns. J. M. Hoover. 36 p. (U.S. Dept.Agr.Dept.Circ.250.)

Inspection.

1909. The score-card system of dairy inspection. C. B. Lane and G. M. Whitaker. 32 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.139.) Rev.by Bur.Anim.Indus.Circ.199.
- Ward, A. R. Pure milk and the public health; a manual of milk and dairy inspection, by A. R. Ward. With two chapters by M. E. Jaffa. Ithaca, N. Y., Taylor & Carpenter. 218 p.
- Winslow, Kenelm. The production and handling of clean milk, including practical milk inspection, by Kenelm Winslow and -- Essentials of milk bacteriology, by H. W. Hill. 2d ed. New York, W. R. Jenkins co. 207 p.
1911. Publicity and payment based on quality as factors in improving a city milk supply. H. A. Harding. p.79-114. (N.Y., State, Agr.Expt.Sta. Bul.337.)
- Popular ed. How a small city improved its milk supply. Summarized by F. H. Hall from bulletin by H. A. Harding. 11 p.
- Milk standards: A study of the bacterial count and dairy score card in city milk inspection. W. K. Brainerd and W. L. Mallory. 20 p. (Va.Agr.Expt.Sta.Bul.194.)
1912. Production and inspection of milk. E. V. Wilcox. 348 p. (Hawaii Agr. Expt.Sta.[Pub.]..)
- The score-card system of dairy inspection. G. M. Whitaker. 32 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.199.) Rev. of Bur.Anim.Indus. Circ.139.
1913. Van Slyke, L. L. Modern methods of testing milk and milk products; a handbook prepared for the use of dairy students, butter makers, cheese makers, producers of milk, operators in condenseries, managers of milk-shipping stations, milk-inspectors, physicians, etc. 2d rev.ed. New York, Orange Judd publishing co. 286 p.

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Inspection. (Cont.)

1914. A comparison of the microscopical method and the plate method of counting bacteria in milk. J. D. Brew. 38 p. (N.Y., State, Agr. Expt. Sta. Bul. 373.)

Popular ed. A new method for determining milk quality. Summarized by F. H. Hall from bulletins 373 and 380 by J. D. Brew and R. S. Breed. 16 p.

1916. Counting bacteria by means of the microscope. R. S. Breed and J. D. Brew. 31 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 49.)

Comparison of the bacterial count of milk with the sediment or dirt test. H. C. Campbell. 7 p. (U.S. Dept. Agr. Bul. 361.)

1917. Inspection and sanitation of dairies. J. O. LaBach and N. M. Cregor. p. 211-228. (Ky. Agr. Expt. Sta. Bul. 211.)

The control of bacteria in market milk by direct microscopic examination. R. S. Breed and J. D. Brew. p. 717-746. (N.Y., State, Agr. Expt. Sta. Bul. 443.)

Popular ed. Using the microscope in milk grading. Summarized by F. H. Hall from bulletin by R. S. Breed and J. D. Brew. 10 p.

A guide for formulating a milk ordinance. Prepared in the Dairy Division of the Bureau of animal industry and in the Bureau of chemistry. 4 p. (U.S. Dept. Agr. Bul. 535.)

Parker, H. N. City milk supply. 1st ed. New York, McGraw-Hill book co., inc. 493 p.

1918. Questions concerning the control of a city milk supply answered. R. S. Breed. 10 p. (N.Y., State, Agr. Expt. Sta. Bul. 456.)

The part of milk contests in improving the milk supply of Portland, Oregon. E. C. Callaway and P. S. Lucas. 24 p. (Oreg. Agr. Expt. Sta. Bul. 156.)

The significance of the colon count in raw milk. S. H. Ayers and P. W. Clemmer. 35 p. (U.S. Dept. Agr. Bul. 739.)

Farrington, E. H. Testing milk and its products; a manual for dairy students, creamery and cheese factory operators, food chemists, and dairy farmers, by E. H. Farrington and F. W. Woll. 24th rev. and enl. ed. Madison, Wis., Menasha book co. 297 p.

Race, Joseph. The examination of milk for public health purposes. 1st ed. New York, John Wiley & sons, inc. 224 p.

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Inspection. (Cont.)

1920. Buying and selling milk on a butterfat basis, containing a brief of the New Jersey law and the report of previous inspection. F. C. Button. 24 p. (N.J.Agr.Expt.Sta.Circ.121.)
1921. The colorimetric hydrogen ion determination as a means of studying biological changes in dairy products. L. H. Cooledge. 20 p. (Mich.Agr.Expt.Sta.Tech.Bul.52.) Spec.Bul.112 presents practical application of methods described in Tech.Bul.52.
- An experiment in improving the milk supply of a city milk plant. L. H. Cooledge and O. T. Goodwin. 16 p. (Mich.Agr.Expt.Sta.Spec.Bul.112.) Spec.Bul.112 presents practical application of methods described in Tech.Bul.52.
- Variations in bacteria counts from milk as affected by media and incubation temperature. G. C. Supplee, W. A. Whiting and P. A. Downs. p.221-247. (N.Y., Cornell, Agr.Expt.Sta.Mem.43.)
- The sporogenes test as an index of the contamination of milk. S. H. Ayers and P. W. Clemmer. 20 p. (U.S.Dept.Agr.Bul.940.)
1922. Mojonnier, Timothy. The technical control of dairy products; a treatise on the testing, analyzing, standardizing and the manufacture of dairy products. By Timothy Mojonnier and H. C. Troy. 1st ed. Chicago, Ill., Mojonnier Bros. co., Milk Engineers. 909 p.
1923. American Public Health Association. Standard methods of milk analysis of the American public health association and the Association of official agricultural chemists. 4th ed. New York, American public health association. 40 p.
- Kelly, Ernest. Market milk, by Ernest Kelly and C. E. Clement. New York, John Wiley & sons, inc. 445 p.

Pasteurization.

1901. Domestic pasteurizing methods and the care of milk in the home. Julius Nelson. 22 p. (N.J.Agr.Expt.Sta.Bul.152.)
1909. Directions for the home pasteurization of milk. L. A. Rogers. 2 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.152.)
1910. The bacteriology of commercially pasteurized and raw market milk. S. H. Ayers and W. T. Johnson, Jr. 98 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.126.)
1912. The pasteurization of milk. S. H. Ayers. 44 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.184.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Pasteurization. (Cont.)

1912. Directions for the home pasteurization of milk. L. A. Rogers.
3 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.197.)
1913. A study of the bacteria which survive pasteurization. S. H. Ayers
and W. T. Johnson, Jr. 66 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.161.)
- Chemical changes produced in cows' milk by pasteurization. Philip
Rupp. 15 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.166.)
1914. The pasteurization of milk in the final package. B. W. Hammer and
A. J. Hauser. p.319-356. (Iowa Agr.Expt.Sta.Bul.154.)
- The cost of pasteurizing milk and cream. J. T. Bowen. 12 p. (U.S.
Dept.Agr.Bul.85.)
- Ability of streptococci to survive pasteurization. S. H. Ayers and
W. T. Johnson, jr. (U.S.Dept.Agr.Jour.Agr.Res.v.II,no.4,p.321-
330.)
1915. Pasteurizing milk in bottles and bottling hot milk pasteurized in
bulk. S. H. Ayers and W. T. Johnson, jr. 27 p. (U.S.Dept.Agr.
Bul.240.)
- Ability of colon bacilli to survive pasteurization. S. H. Ayers
and W. T. Johnson, jr. (U.S.Dept.Agr.Jour.Agr.Res.v.III,no.5,
p.401-410.)
1916. Cooling hot-bottled pasteurized milk by forced air. S. H. Ayers,
J. T. Bowen and W. T. Johnson, jr. 38 p. (U.S.Dept.Agr.Bul.
420.)
- Effect of pasteurization on mold spores. Charles Thom and S. H.
Ayers. (U.S.Dept.Agr.Jour.Agr.Res.v.VI,no.4,p.153-166.)
- Kilbourne, C. H. The pasteurization of milk from the practical
viewpoint. New York, John Wiley & sons, inc. 248 p.
1918. Studies in processing milk. H. F. Judkins and P. A. Downs. p.449-
470. (Conn., Storrs, Agr.Expt.Sta.Bul.99.)
1919. Bacteriological results obtained in practice with vat pasteurization
and with one of the final package methods. B. W. Hammer. p.151-
158. (Iowa Agr.Expt.Sta.Bul.190.)
1920. American Public Health Association. Pasteurization of milk; report
of Committee on milk supply of the Sanitary engineering section,
American public health association. Boston, American public health
association. 32 p.

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Pasteurization. (Cont.)

1921. Effect of temperature of pasteurization on the creaming ability of milk. H. A. Harding. p.395-403. (Ill.Agr.Expt.Sta.Bul.237.)

1922. The present status of the pasteurization of milk. S. H. Ayers. 27 p. (U.S.Dept.Agr.Bul.342, rev.) 1st ed., 1916.

Secretion.

1901. The food source of milk fat with studies on the nutrition of milch cows. W. H. Jordan, C. G. Jentner, and F. D. Fuller. 32 p. (N.Y., State, Agr.Expt.Sta.Bul.197.)

Popular ed. Fat in milk from starch in food. F. H. Hall [and others]. 8 p.

The immediate effect on milk production of changes in the ration. W. P. Wheeler. p.375-433. (N.Y., State, Agr.Expt.Sta.Bul.210.)

Popular ed. How changes in feed affect the yield of milk. F. H. Hall and W. P. Wheeler. 8 p.

1903. Experiments with dairy herd: I, The herd record; II, ration tests for dairy cows; III, the best week in a cow's lactation period. A. L. Haecker. 21 p. (Nebr.Agr.Expt.Sta.Bul.76.)

1904. The character of milk during the period of heat. C. F. Doane. p.25-30. (Md.Agr.Expt.Sta.Bul.95.)

Record of an attempt to increase the fat in milk by means of liberal feeding. H. H. Wing and J. A. Foord. p.19-39. (N.Y., Cornell, Agr.Expt.Sta.Bul.222.)

On the relation of food to the production of milk and butter fat by dairy cows. F. W. Woll. 85 p. (Wis.Agr.Expt.Sta.Bul.116.) Bul. 117 is a popular ed. of Bul.116.

The relation of food to dairy production. F. W. Woll. 16 p. (Wis. Agr.Expt.Sta.Bul.117.) A popular ed. of Bul.116.

1905. Feeding fat into milk; or the effect of the food upon the quality and quantity of milk produced. Recent experimental inquiry upon milk secretion. C. D. Woods.-- The physiology of milk secretion. A. W. Bitting. 43 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.75.)

1907. Investigation in milk production: The relation of nutriment to product. T. L. Haecker. p.147-169. (Minn.Agr.Expt.Sta.Bul.106.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Secretion. (Cont.)

1910. A study of cause of wide variations in milk production by dairy cows. C. H. Eckles and O. E. Reed. p.107-147. (Mo.Agr.Expt. Sta.Res.Bul.2.)
1912. Influence of fatness of cow on per cent of fat in milk. C. H. Eckles. p.183-202. (Mo.Agr.Expt.Sta.Bul.100.)
1913. Constants for normal variation in the fat content of milk. Raymond Pearl. p.299-305. (Me.Agr.Expt.Sta.Bul.221.)
- The relation of milk yield to age at first calf. R. C. Towles. p.227-238. (Md.Agr.Expt.Sta.Bul.217.)
- The influence of the stage of lactation on the composition and properties of milk. C. H. Eckles and R. H. Shaw. 83 p. (U.S. Dept.Agr.Bur.Anim.Indus.Bul.155.)
- The influence of breed and individuality on the composition and properties of milk. C. H. Eckles and R. H. Shaw. 27 p. (U.S. Dept.Agr.Bur.Anim.Indus.Bul.156.)
- Variations in the composition and properties of milk from the individual cow. C. H. Eckles and R. H. Shaw. 27 p. (U.S.Dept. Agr.Bur.Anim.Indus.Bul.157.)
1914. Studies in the range of variation of the per cent of butter fat in the milk of individual cows. A. C. Anderson. 13 p. (Mich.Agr. Expt.Sta.Spec.Bul.71.)
1915. Diuresis and milk flow. Harry Steenbock. (U.S.Dept.Agr.Jour.Agr. Res.v.V,no.13,p.561-568.)
1916. Influence of plane of nutrition of the cow upon the composition and properties of milk and butter fat: Influence of overfeeding. C. H. Eckles and L. S. Palmer. 35 p. (Mo.Agr.Expt.Sta.Res.Bul. 24.)
- Influence of plane of nutrition of the cow upon the composition and properties of milk and butter fat: Influence of underfeeding. C. H. Eckles and L. S. Palmer. 107 p. (Mo.Agr.Expt.Sta.Res.Bul. 25.)
- Effect of water in the ration on the composition of milk. W. F. Turner [and others]. (U.S.Dept.Agr.Jour.Agr.Res.v.VI,no.4,p.167-178.)
1917. The change of milk flow with age, as determined from seven day records of Jersey cows. Raymond Pearl and S. W. Patterson. p.145-152. (Me.Agr.Expt.Sta.Bul.262.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Secretion. (Cont.)

1917. Stage of lactation affects milk yield: Persistent milkers become winners in long run. R. I. Grady. (Ohio Agr. Expt. Sta. Monthly Bul. v. II, no. 12, p. 401-406.)

"Mony meikles mak a muckle", II: The relation of the milk-vein system to production. A. W. Aldrich and J. W. Dana.-- The cost of production of milk and butterfat in 1911 and 1912. G. M. Nelson.-- The effect of the sire on the herd. J. H. Wilson.-- Concerning the Burlington milk supply. J. E. Carrigan and W. T. Abell. 47 p. (Vt. Agr. Expt. Sta. Bul. 202.)

Influence of the age of the cow on the composition and properties of milk and milk fat. C. H. Eckles and L. S. Palmer. (U.S. Dept. Agr. Jour. Agr. Res. v. XI, no. 12, p. 645-658.)

1918. Variations in the fat, solids-not-fat, and total solids in cow's milk. G. C. White and H. F. Judkins. p. 251-307. (Conn., Storrs, Agr. Expt. Sta. Bul. 94.)

Correlation between the percentage of fat in cow's milk and the yield. Elmer Roberts. (U.S. Dept. Agr. Jour. Agr. Res. v. XIV, no. 2, p. 67-96.)

1919. The influence of barley on the milk secretion of cows. F. W. Woll and E. C. Voorhies. p. 325-334. (Calif. Agr. Expt. Sta. Bul. 305.)

The variation of Ayrshire cows in the quantity and fat content of their milk. Raymond Pearl and J. R. Miner. p. 57-64. (Me. Agr. Expt. Sta. Bul. 279.) Abstract of U.S. Dept. Agr. Jour. Agr. Res. 17(1919) no. 6, p. 285-322.

Studies in milk secretion: VII, Transmitting qualities of Jersey sires for milk yield, butter-fat percentage and butter-fat. Raymond Pearl, J. W. Gowen and J. R. Rice. p. 165-204. (Me. Agr. Expt. Sta. Bul. 281.)

Variations and mode of secretion of milk solids. J. W. Gowen. (U.S. Dept. Agr. Jour. Agr. Res. v. XVI, no. 3, p. 79-102.)

Variation of Ayrshire cows in the quantity and fat content of their milk. Raymond Pearl and J. R. Miner. (U.S. Dept. Agr. Jour. Agr. Res. v. XVII, no. 6, p. 285-322.) For abstract see Me. Agr. Expt. Sta. Bul. 279.

1920. The variation of milk secretion with age in Jersey cattle. J. W. Gowen. p. 49-60. (Me. Agr. Expt. Sta. Bul. 286.)

The correlation between milk yield of one lactation and that of succeeding lactation. J. W. Gowen. p. 121-132. (Me. Agr. Expt. Sta. Bul. 289.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Secretion. (Cont.)

1920. The variation of butter-fat percentage with age in Jersey cattle.
J. W. Gowen. p.133-144. (Me.Agr.Expt.Sta.Bul.290.)

The correlation between the butter-fat percentage of one lactation and the butter-fat percentage of succeeding lactations in Jersey cattle. J. W. Gowen. p.145-156. (Me.Agr.Expt.Sta.Bul.291.)

Studies in milk secretion: VIII, On the influence of age on the milk yield and butter-fat percentage, as determined from the 365-day records of Holstein-Friesian cattle. J. W. Gowen. p.185-196. (Me.Agr.Expt.Sta.Bul.293.)

Effect of drugs on milk and fat production. F. A. Hays and M. G. Thomas. (U.S.Dept.Agr.Jour.Agr.Res.v.XIX,no.3,p.123-130.)

1921. Studies in milk secretion: IX, On the preformance of the progeny of Holstein-Friesian sires. J. W. Gowen and Mildred R. Covell. p.121-252. (Me.Agr.Expt.Sta.Bul.300.)

Studies in milk secretion: XII, Transmitting qualities of Holstein-Friesian sires for milk yield, butter-fat percentage and butter-fat. J. W. Gowen and Mildred R. Covell. p.253-308. (Me.Agr.Expt.Sta.Bul.301.)

1922. Studies in milk secretion: XVII, Relation between milk yields and butter-fat percentages of the 7-day and 365-day tests of Holstein-Friesian advanced registry cattle. Marie S. Gowen and J. W. Gowen. p.21-60. (Me.Agr.Expt.Sta.Bul.306.)

Supply and Distribution.

1901. The source of milk supply for towns and cities. C. S. Plumb. p.39-69. (Ind.Agr.Expt.Sta.Bul.89.)

1903. City milk supply. W. J. Fraser. p.250-272. (Ill.Agr.Expt.Sta.Bul.92.)

The milk supply of two hundred cities and towns. H. E. Alvord and R. A. Pearson. 210 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.46.)

1905. The milk supply of twenty-nine southern cities. C. F. Doane. 40 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.70.)

The milk supply of Boston, New York, and Philadelphia. G. M. Whitaker. 62 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.81.)

1906. Market milk. J. B. Lindsey and P. H. Smith. 48 p. (Mass.Agr.Expt.Sta.Bul.110.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.

Supply and Distribution. (Cont.)

1907. Milk supply of Chicago and twenty-six other cities. J. M. Trueman. p.41-70. (Ill.Agr.Expt.Sta.Bul.120.)
1908. Milk supply of Kentucky: Louisville. R. M. Allen. p.74-323. (Ky. Agr.Expt.Sta.Bul.134.)
1911. The milk supply of Chicago and Washington. G. M. Whitaker. 40 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.138.)
1912. Michels, John. Market dairying and milk products. 2d ed. rev. and enl. Wauwatosa, Wis.; The author. 372 p.
- Rosenau, M. J. The milk question. New York, Houghton Mifflin co. 309 p.
1913. The utilization of exhaust steam for heating boiler feed water and wash water in milk plants, creameries, and dairies. J. T. Bowen. 13 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.209.)
- The control of bulk milk in stores. Ernest Kelly. p.237-246. (U.S. Dept.Agr.Bur.Anim.Indus.Circ.217.)
- Larsen, Christian. Dairy technology; a treatise on the city milk supply, milk as a food, ice cream making, by-products of the creamery and cheesery, fermented milks, condensed and evaporated milks, milk powder, renovated butter, and oleomargarine, by C. Larsen and Wm. White. New York, John Wiley & sons, inc. 298 p.
1916. Studies on the market milk of Iowa. Complete with appendix of tables. B. W. Hammer and A. J. Hauser. p.311-380. (Iowa Agr.Expt.Sta.Bul. 164.)
1917. Progress report on the production and distribution of milk. Elwood Mead. 16 p. (Calif.Agr.Expt.Sta.Circ.175.)
- The cost of distributing milk in six cities and towns in Massachusetts. A. E. Cance and R. H. Ferguson. 54 p. (Mass.Agr.Expt.Sta.Bul.173.)
- "Mony meikles mak a muckle", II: The relation of the milk-vein system to production. A. W. Aldrich and J. W. Dana.-- The cost of production of milk and butterfat in 1911 and 1912. G. M. Nelson.-- The effect of the sire on the herd. J. H. Wilson.-- Concerning the Burlington milk supply. J. E. Carrigan and W. T. Abell. 47 p. (Vt. Agr.Expt.Sta.Bul.202.)
- Marketing Wisconsin milk. B. H. Hibbard and H. E. Erdman. 71 p. (Wis.Agr.Expt.Sta.Bul.235.)
- MacNutt, J. S. The modern milk problem in sanitation, economics, and agriculture. New York, The Macmillan co. 258 p.

SUBJECT LIST.

DAIRY PRODUCTS. Milk.

Supply and Distribution. (Cont.)

1917. Parker, H. N. City milk supply. 1st ed. New York, McGraw-Hill book co., inc. 493 p.
1918. The standardization of market milk. L. L. Van Slyke. 9 p. (N.Y., State, Agr. Expt. Sta. Circ. 56.)
- The market milk business of Detroit, Mich., in 1915. C. E. Clement and G. P. Warber. 28 p. (U.S. Dept. Agr. Bul. 639.)
1919. The Detroit commission plan of city milk administration. W. O. Hedrick and A. C. Anderson. 30 p. (Mich. Agr. Expt. Sta. Spec. Bul. 99.)
- The economical use of fuel in milk plants and creameries. J. T. Bowen. 47 p. (U.S. Dept. Agr. Bul. 747.)
1920. City milk plants: Construction and arrangement. Ernest Kelly and C. E. Clement. 35 p. (U.S. Dept. Agr. Bul. 849.)
- Milk-plant equipment. Ernest Kelly and C. E. Clement. 42 p. (U.S. Dept. Agr. Bul. 890.)
1921. Studies in city milk distribution. S. J. Brownell. 24 p. (Mich. Agr. Expt. Sta. Spec. Bul. 111.)
- Erdmann, H. E. The marketing of whole milk. New York, The Macmillan co. 333 p.
- Mortensen, Martin. Management of dairy plants. New York, The Macmillan co. 358 p.
1922. Producers' cooperative milk-distributing plants. O. B. Jesness, W. H. Barber, A. V. Swarthout and C. E. Clement. 44 p. (U.S. Dept. Agr. Bul. 1095.)
1923. Milk-plant operation. C. E. Clement. 45 p. (U.S. Dept. Agr. Bul. 973.)
- Kelly, Ernest. Market milk, by Ernest Kelly and C. E. Clement. New York, John Wiley & sons, inc. 445 p.
- Creamery and Milk Plant Monthly. Chicago, Ill. \$1.00; Canada, \$1.25; Foreign, \$1.50.
- Dairy World. Chicago, Ill. Monthly. \$1.00; Canada, \$1.50; Foreign, \$2.00.
- Milk Dealer. Milwaukee, Wis. Monthly. \$2.00; Canada and Foreign, \$3.00.

SUBJECT LIST.

DAIRY PRODUCTS. Milk.

Supply and Distribution. (Cont.)

1923. Milk Magazine. Waterloo, Iowa. Monthly. \$1.00; Canada, \$1.50; Foreign countries in Postal Union, \$2.00.

Milk Reporter. Sussex, N. J. Monthly. \$2.00.

New York Produce Review and American Creamery. New York, N. Y. Weekly. \$2.00; Canada, \$3.00; Foreign, \$4.00.

Western Milk Dealer and Dairyman. Seattle, Wash. Monthly. \$1.00.

Tests.

1900. The use of the Babcock test. G. H. True. p.259-262. (Ariz.Agr. Expt.Sta.Timely Hints for Farmers 24.)

I, Cream testing. C. H. Eckles. - II, Influence of certain conditions in churning on the amount of water in butter; III, a study of butter increasers. J. B. Weems and F. W. Bouska. p.31-67. (Iowa Agr. Expt.Sta.Bul.52.)

Inspection of Babcock milk test bottles. W. H. Jordan and G. A. Smith. p.99-103. (N.Y., State, Agr.Expt.Sta.Bul.178.)

1902. Solutions for testing cream and milk. J. B. Weems and C. E. Gray. p.266-272. (Iowa Agr.Expt.Sta.Bul.67.)

Testing milk and cream. F. L. Kent. p.163-176. (Oreg.Agr.Expt.Sta. Bul.70.)

Variations in cream and milk tests. A. H. Wheaton. 14 p. (S.Dak. Agr.Expt.Sta.Bul.73.)

1904. The Babcock test for New Hampshire farmers. I. C. Weld. p.147-158. (N.H.Agr.Expt.Sta.Bul.114.)

The fat testing of cream by the Babcock method. E. H. Webster. 29 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.58.)

1905. Sampling milk for composite tests of individual cows. H. A. Hopper. 5 p. (Ill.Agr.Expt.Sta.Circ.90.)

A simple alkali test for ripeness of cream. H. E. Van Norman. p.267-274. (Ind.Agr.Expt.Sta.Bul.104.)

The care of composite milk samples. I. C. Weld. p.181-184. (N.H. Agr.Expt.Sta.Bul.126.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Tests. (Cont.)

1907. A simple test for casein in milk and its relation to the dairy industry. E. B. Hart. 22 p. (Wis.Agr.Expt.Sta.Bul.156.)
1908. Babcock test for butter fat. J. H. Frandson. 6 p. (Idaho Agr.Expt. Sta.Bul.63.)
- The Babcock test. W. B. Liverance. p.7-16. (Mich.Agr.Expt.Sta. Circ.2.)
1909. I, An act to provide for the protection of dairymen. II, The Babcock test. P. H. Smith. 8 p. (Mass.Agr.Expt.Sta.Circ.24.) Superseded by Circ.33.
- An apparatus for measuring acidity in cheese-making and butter-making. C. A. Publow. p.17-20. (N.Y., Cornell, Agr.Expt.Sta.Circ.7.)
- A volumetric method for the determination of casein in milk. L. L. Van Slyke and A. W. Bosworth. p.231-249. (N.Y., State, Agr.Expt. Sta.Tech.Bul.10.)
1910. Testing cream for butter fat. O. F. Hunziker [and others]. p.531-595. (Ind.Agr.Expt.Sta.Bul.145.) Same. Popular ed. 1910. 22 p.
- Directions for testing milk on the farm by the Babcock method. H. E. McNatt. p.57-60. (Mo.Agr.Expt.Sta.Circ.41.)
- New and improved tests of dairy products. S. M. Babcock and E. H. Farrington.-- The preparation of buttermilk curd. J. L. Sammis. 21 p. (Wis.Agr.Expt.Sta.Bul.195.)
- Operating the casein test at cheese factories. E. B. Hart and W. H. Cooper. 4 p. (Wis.Agr.Expt.Sta.Circ.of Inform.10.)
1911. How to use the Babcock test. J. L. Sammis. 26 p. (Wis.Agr.Expt. Sta.Circ.of Inform.27.)
- The estimation of total solids in milk by the use of formulas. R. H. Shaw and C. H. Eckles. 31 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul. 134.)
1912. I, An act to regulate the use of utensils for testing the composition or value of milk and cream. II, Salient points in the act. III, Suggestions for making the Babcock test. P. H. Smith. 11 p. (Mass. Agr.Expt.Sta.Circ.33.) Supersedes Circ.24.
- The "coming of age" of the Babcock test. H. L. Russell. p.3-18. (Wis.Agr.Expt.Sta.Circ.of Inform.32.)

SUBJECT LIST.

DAIRY PRODUCTS. Milk.
Tests. (Cont.)

1912. The milk sediment test and its applications. A. C. Baer. 17 p.
(Wis. Agr. Expt. Sta. Circ. of Inform. 41.)

1913. Directions for testing cream. L. G. Rinkle. p. 223-230. (Mo. Agr.
Expt. Sta. Circ. 64.)

The Babcock test, with special reference to testing cream. H. E.
Ross and T. J. McInerney. p. 27-47. (N. Y., Cornell, Agr. Expt. Sta.
Bul. 337.)

A comparison of the acid test and the rennet test for determining
the condition of milk for the cheddar type of cheese. E. G. Has-
tings and A. C. Evans. 6 p. (U. S. Dept. Agr. Bur. Anim. Indus.
Circ. 210.)

Van Slyke, L. L. Modern methods of testing milk and milk products;
a handbook prepared for the use of dairy students, butter makers,
cheese makers, producers of milk, operators in condenseries, man-
agers of milk-shipping stations, milk-inspectors, physicians, etc.
2d rev. ed. New York, Orange Judd publishing co. 286 p.

1914. Testing and handling of milk and cream. R. McCann. 31 p. (Colo.
Agr. Expt. Sta. Bul. 202.)

Testing for fat in milk by the Babcock test. 11 p. (Ill. Agr. Expt.
Sta. Circ. 174.)

Testing milk and cream for butter fat. O. F. Hunziker. 22 p. (Ind.
Agr. Expt. Sta. Circ. 42.) Circ. 78 supersedes Circ. 42.

Some improved dairy tests and methods: I. One way to determine the
over-run in the making of ice cream. G. H. Benkendorf. -- II. A
burette for calibrating Babcock test bottles. G. H. Benkendorf. --
III. A wire cheese curd knife. G. H. Benkendorf and A. T. Bruhn.
-- IV. An attachment for the milk sediment tester. A. C. Baer. --
V. Cheese making tests with homogenized milk. J. L. Sammis. 19 p.
(Wis. Agr. Expt. Sta. Bul. 241.)

Heller, L. U. Heller butterfat tables. Chicago, C. W. Braithwaite
co., printers. 70 p. folio.

1915. Variations in the tests for fat in cream and skimmed milk. E. S.
Guthrie and G. C. Supplee. p. 277-289. (N. Y., Cornell, Agr. Expt.
Sta. Bul. 360.)

Using the Babcock test. J. M. Fuller. 15 p. (Okla. Agr. Expt. Sta.
Bul. 107.)

SUBJECT LIST:

DAIRY PRODUCTS. Milk.

Tests. (Cont.)

1915. The Babcock test and its application. R. E. Hundertmark. 14 p.
(Wash. Agr. Expt. Sta. Pop. Bul. 75.)

The alcohol test in relation to milk. S. H. Ayers and W. T. Johnson, jr. 35 p. (U.S. Dept. Agr. Bul. 202.)

1916. Cream testing balances. O. F. Hunziker, George Spitzer and G. L. Ogle. 20 p. (Ind. Agr. Expt. Sta. Bul. 139.)

Testing milk and cream. M. R. Tolstrup and Martin Mortensen. 8 p.
(Iowa Agr. Expt. Sta. Circ. 32.)

Digest and copy of law regulating the weighing, testing and purchasing of milk and cream (Chapter 31, Laws of 1916). W. J. Carson. 16 p. (N.J. Agr. Expt. Sta. Circ. 62.)

Variations in the composition of skimmilk. A. E. Perkins. (Ohio Agr. Expt. Sta. Monthly Bul. v. I, no. 10, p. 304-306.)

1917. The determination of fat in certain milk products. C. K. Francis and D. G. Morgan. 3 p. (Okla. Agr. Expt. Sta. Bul. 114.)

Chemical testing of milk and cream. R. H. Shaw. 42 p. (U.S. Dept. Agr. Bur. Anim. Indus. [Pub.] A-12.)

1918. Testing milk and cream for butter-fat. R. E. Caldwell, T. H. Broughton and S. L. Anderson. 15 p. (Ind. Agr. Expt. Sta. Circ. 73.)
Circ. 73 supersedes Circ. 42.

Composite versus one-day sampling of milk for the Babcock test. W. H. Eaton. 8 p. (N.C. Agr. Expt. Sta. Bul. 240.)

Farrington, E. H. Testing milk and its products; a manual for dairy students, creamery and cheese factory operators, food chemists, and dairy farmers, by E. H. Farrington and F. W. Woll. 24th rev. and enl. ed. Madison, Wis., Mendota book co. 297 p.

1919. A method for the preliminary detection of abnormal milks. J. C. Baker and L. L. Van Slyke. 14 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 71.)

The determination of the keeping quality of milk. J. C. Baker and L. L. Van Slyke. 8 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 72.)

Smith, J. F. Smith's butterfat computer. Kansas City, Mo., J. F. Smith. 99 p.

SUBJECT LIST.

DAIRY PRODUCTS. Milk.

Tests. (Cont.)

1920. Buying and selling milk on a butterfat basis, containing a brief of the New Jersey law and the report of previous inspection. F. C. Button. 24 p. (N.J.Agr.Expt.Sta.Circ.121.)
- A comparison of fat tests in milk as determined by a cow-testing association and by a creamery. H. C. Troy. p.3-68. (N.Y., Cornell Agr.Expt.Sta.Bul.400.)
- A comparative study of some methods for determining the fat content of skimmilk. T. J. McInerney and H. C. Troy. p.69-85. (N.Y., Cornell, Agr.Expt.Sta.Bul.401.)
- A modified Babcock method for determining fat in butter. N. W. Hepburn. p.665-690. (N.Y., Cornell, Agr.Expt.Sta.Mem.37.)
1921. Testing milk, cream, and skim milk for butterfat. J. C. Marquardt. 11 p. (Calif.Agr.Expt.Sta.Circ.230.)
- The alcohol test as a means of determining quality of milk for condenseries. A. O. Dahlberg and H. S. Garner. 13 p. (U.S.Dept.Agr. Bul.944.)
- Troy, H. C. Dairy laboratory exercises on testing and composition of dairy products, by H. C. Troy and T. J. McInerney. 1st ed. Ithaca, N.Y., Ithaca publishing co. 166 p.
1922. Milk testing in practice. H. M. Jones and T. H. Wright. p.417-431. (S.Dak.Agr.Expt.Sta.Bul.197.)
- Mojonnier, Timothy. The technical control of dairy products; a treatise on the testing, analyzing, standardizing and the manufacture of dairy products. By Timothy Mojonnier and H. C. Troy. 1st ed. Chicago, Ill., Mojonnier Bros. co., Milk Engineers. 909 p.

DAIRY PRODUCTS. Condensed, Evaporated and Powdered Milk.

1909. The estimation of fat in unsweetened evaporated milk by modified methods. O. F. Hunziker and G. W. Spitzer. p.591-651. (Ind.Agr. Expt.Sta.Bul.134.)
1910. Standards for evaporated milk, sweetened condensed milk and condensed skim milk. Federal and state dairy laws. O. F. Hunziker. p.479-507. (Ind.Agr.Expt.Sta.Bul.143.) Same. Popular ed. 1910. 15 p.
1912. "Mony meikles mak a muckle": Studies of the rennet coagulation of milk. R. M. Washburn and A. P. Bigelow.-- The control of the moisture content of butter. C. L. Beach, A. P. Bigelow and R. H. Allen.-- A bacterial infection of condensed milk. L. A. Thayer.-- The value of the escutcheon in judging dairy cattle. C. F. Moran.-- Mock silage. C. L. Beach. p.120-127. (Vt.Agr.Expt.Sta.Bul.170.)

SUBJECT LIST.

DAIRY PRODUCTS.

Condensed, Evaporated and Powdered Milk. (Cont.)

1913. Condensed and desiccated milk. Levi Wells. p.335-344. (U.S.Dept. Agr. Yearbook, 1912, Sept. 595.)
1915. Bacteriological studies on the coagulation of evaporated milk. B. W. Hammer. p.119-132. (Iowa Agr. Expt. Sta. Res. Bul. 19.)
1917. Fishiness in evaporated milk. B. W. Hammer. p.235-246. (Iowa Agr. Expt. Sta. Res. Bul. 38.)

Stacking, W. A. Manual of milk products. New York, The Macmillan co. 578 p.

1919. Economy in feeding the family: V, Condensed milk, malted milk, milk powders. J. P. Street. p.399-407. (Conn., State, Agr. Expt. Sta. Bul. 213.)

Studies on abnormal evaporated milk. B. W. Hammer. p.187-198. (Iowa Agr. Expt. Sta. Res. Bul. 52.)

Studies on formation of gas in sweetened condensed milk. B. W. Hammer. p.211-220. (Iowa Agr. Expt. Sta. Res. Bul. 54.)

1920. Hunziker, O. F. Condensed milk and milk powder. 3d ed. rev. and enl. LaGrange, Ill., The author. 424 p.

Mojonnier, Timothy. The technical control of dairy products; a treatise on the testing, analyzing, standardizing and the manufacture of dairy products. By Timothy Mojonnier and H. C. Troy. 1st ed. Chicago, Ill., Mojonnier Bros. co., Milk Enginners. 909 p.

Cream.

1900. The ripening of cream. H. W. Conn. 24 p. (Conn., Storrs, Agr. Expt. Sta. Bul. 21.)

1902. Standard milk and cream. W. J. Fraser. p.283-296. (Ill. Agr. Expt. Sta. Bul. 74.)

Standardization of milk and cream. Oscar Erf. p.297-309. (Ill. Agr. Expt. Sta. Bul. 75.)

Standard milk and cream. W. J. Fraser. 12 p. (Ill. Agr. Expt. Sta. Circ. 51.)

Variations in cream and milk tests. A. H. Wheaton. 14 p. (S. Dak. Agr. Expt. Sta. Bul. 73.)

SUBJECT-LIST.

DAIRY PRODUCTS.

Cream. (Cont.)

1903. Paying for separator cream at the creamery. J. L. Hills. 24 p.
(Vt. Agr. Expt. Sta. Bul. 100.)
1904. The relative profits of selling milk, cream, and butter. C. F.
Doane. p. 45-56. (Md. Agr. Expt. Sta. Bul. 97.)
1906. Grading cream. Oscar Erf. p. 133-144. (Kans. Agr. Expt. Sta. Bul. 135.)
- Variations in the test of separator creams. C. W. Melick. p. 205-
211. (Kans. Agr. Expt. Sta. Bul. 137.)
- Improving the quality of cream from inferior milk. W. D. Saunders.
p. 147-156. (Va. Agr. Expt. Sta. Bul. 162.)
- Market milk investigations. II, The milk and cream exhibit at the
National dairy show, 1906. C. B. Lane. 21 p. (U.S. Dept. Agr. Bur.
Anim. Indus. Bul. 87.)
1907. A plan for improving the quality of milk and cream furnished to New
Hampshire creameries. I. C. Weld. p. 59-67. (N.H. Agr. Expt. Sta.
Bul. 132.)
- A study of the bacterial content of cream. L. L. Lewis and W. R.
Wright. 16 p. (Okla. Agr. Expt. Sta. Bul. 75.)
- A city milk and cream contest as a practical method of improving the
milk supply. C. B. Lane and I. C. Weld. 28 p. (U.S. Dept. Agr.
Bur. Anim. Indus. Circ. 117.)
1908. Handling and marketing milk and cream. John Michels. 24 p. (N.C.
Agr. Expt. Sta. Bul. 198.)
1909. Pasteurization as a factor in making butter from cream skimmed on
the farm. C. E. Lee. p. 368-438. (Ill. Agr. Expt. Sta. Bul. 138.)
- Whipped cream. C. W. Melick. p. 285-300. (Md. Agr. Expt. Sta. Bul. 136.)
- Competitive exhibitions of milk and cream, with report of an exhi-
bition held at Pittsburg, Pa., in cooperation with the Pittsburg
chamber of commerce. C. B. Lane and I. C. Weld. 36 p. (U.S.
Dept. Agr. Bur. Anim. Indus. Circ. 151.)
1910. Variations in cream tests. C. H. Eckles. p. 13-16. (Mo. Agr. Expt.
Sta. Circ. 37.) Circ. 37 is a popular discussion of Bul. 94.
1911. The cream supply. H. A. Hopper. p. 115-137. (Calif. Agr. Expt. Sta.
Bul. 209.)

SUBJECT LIST

DAIRY PRODUCTS.

Cream. (Cont.)

1911. Care of cream on the farm. F. A. Jorgensen. 12 p. (Ill. Agr. Expt. Sta. Circ. 148.)
Why do cream tests vary? Factors affecting richness of cream; relation of butter fat to butter. O. F. Hunziker. p. 27-55. (Ind. Agr. Expt. Sta. Bul. 150.)
Factors affecting the per cent of fat in cream from farm separators. C. H. Eckles and H. S. Wayman. p. 517-558. (Mo. Agr. Expt. Sta. Bul. 94.) Circ. 37 is a popular discussion of Bul. 94.
The grading of cream. B. D. White. p. 275-280. (U.S. Dept. Agr. Year-book, 1910, Sept. 536.)
1912. Comparison of methods of sampling cream for testing. C. E. Lee and N. W. Hepburn. p. 545-574. (Ill. Agr. Expt. Sta. Bul. 153.) Abstract. 1912. 3 p.
The permit system of cream buying. D. S. Burch and W. F. Droge. p. 397-440. (Kans. Agr. Expt. Sta. Bul. 181.) For rev. see Bul. 184.
Care of milk and cream on the farm. J. H. Frandsen. 12 p. (Nebr. Agr. Expt. Sta. Bul. 133.)
Better cream through grading; a new butter moisture test. G. H. Benkendorf. 14 p. (Wis. Agr. Expt. Sta. Bul. 220.)
The temperature of pasteurization for butter making. L. A. Rogers, W. N. Berg and B. J. Davis. p. 307-326. (U.S. Dept. Agr. Bur. Anim. Indus. Circ. 189.)
Milk and cream contests. How to conduct them, and how to prepare samples for competition. Ernest Kelly. 28 p. (U.S. Dept. Agr. Bur. Anim. Indus. Circ. 205.)
1913. The permit system of cream buying. G. S. Hine and W. F. Droge. p. 5-43. (Kans. Agr. Expt. Sta. Bul. 184.) Rev. of Bul. 181.
The care of cream. A. E. Perkins. p. 57-77. (Ohio Agr. Expt. Sta. Circ. 134.)
Cause of variation in per cent of fat of market cream from farm separators. V. R. Jones. 8 p. (Wash. Agr. Expt. Sta. Pop. Bul. 53.)
1914. Pasteurization of cream for buttermaking: Part I, Effect on quality and chemical composition. Martin Mortensen, W. G. Gaessler and W. H. Cooper. - Part II, Bacteriological studies. B. W. Hammer. 40 p. (Iowa Agr. Expt. Sta. Bul. 156.)

SUBJECT LIST.

DAIRY PRODUCTS.

Cream. (Cont.)

1914. Cream grading for Kansas. G. S. Hine. 4 p. (Kans.Agr.Expt.Sta. Circ.39.) Superseded by Circ.56.
- The cost of pasteurizing milk and cream. J. T. Bowen. 12 p. (U.S. Dept.Agr.Bul.85.)
- Removal of garlic flavor from milk and cream. S. H. Ayers and W. T. Johnson, jr. 4 p. (U.S.Dept.Agr.Farmers' Bul.603.)
- Studies in the expansion of milk and cream. H. W. Bearce. (U.S. Dept.Agr.Jour.Agr.Res.v.III,no.3,p.251-268.)
- Marketing butter and cream in the South. Dairy Division. 3 p. (U.S. Dept.Agr.Bur.Anim.Indus.[Pub.])
- The production and care of milk and cream. Dairy Division. 4 p. (U.S.Dept.Agr.Bur.Anim.Indus.[Pub.])
- 1915.. How to produce cream that makes good butter. O. F. Hunziker and G. L. Ogle. 8 p. (Ind.Agr.Expt.Sta.Circ.51.)
- The yellow color in cream and butter. L. S. Palmer. p.41-46. (Mo. Agr.Expt.Sta.Circ.74.)
1916. Cooling cream on the farm. O. F. Hunziker, H. C. Mills and H. B. Switzer. p.1037-1119. (Ind.Agr.Expt.Sta.Bul.183.)
- Cream production and grading in Kansas. G. S. Hine. 4 p. (Kans. Agr.Expt.Sta.Circ.56.) Supersedes Circ.39.
- The production of first grade cream. R. C. Potts. 11 p. (Okla. Agr.Expt.Sta.Bul.108.)
- Pasteurization of cream. Christian Larsen [and others]. p.529-548. (S.Dak.Agr.Expt.Sta.Bul.171.)
- Milk and cream contests. Ernest Kelly, L. B. Cook and J. A. Gamble. 23 p. (U.S.Dept.Agr.Bul.356.) For rev. see Dept.Circ.53.
1917. Caring for cream on the farm. H. A. Ruehe. 2 p. (Ill.Agr.Expt. Sta.Circ.190.)
- Why cream tests vary. H. A. Ruehe. 2 p. (Ill.Agr.Expt.Sta.Circ. 192.)
- Spring conditions affecting the cream producer. H. A. Ruehe. 4 p. (Ill.Agr.Expt.Sta.Circ.195.)

SUBJECT LIST.

DAIRY PRODUCTS.

Cream. (Cont.)

1917. The pasteurization of sour, farm-skimmed cream for buttermaking.
O. F. Hunziker, George Spitzer, H. C. Mills, and H. B. Switzer.
76 p. (Ind. Agr. Expt. Sta. Bul. 203.)
1919. Operation of the cream receiving stations. N. W. Hepburn and H. A. Ruehe. 19 p. (Ill. Agr. Expt. Sta. Circ. 234.)
- Milk and cream contests. Ernest Kelly and G. B. Taylor. 24 p.
(U. S. Dept. Agr. Dept. Circ. 53.) Rev. of Dept. Bul. 356.
1920. A study of lactose-fermenting yeasts present in "yeasty" cream.
B. W. Hammer and W. A. Cordes. 23 p. (Iowa Agr. Expt. Sta. Res. Bul. 61.)
1921. The measurement of the volume of cream on milk. H. A. Harding.
16 p. (Ill. Agr. Expt. Sta. Circ. 249.)
1922. The whipping quality of cream. C. J. Babcock. 23 p. (U. S. Dept. Agr. Bul. 1075.)
- Cooling milk and cream on the farm. J. A. Gamble. 16 p. (U. S. Dept. Agr. Farmers' Bul. 976, rev.) 1st ed., 1913.

Butter.

1900. List of creameries in Illinois. 16 p. (Ill. Agr. Expt. Sta. Circ. 26.)
- Circular of inquiry concerning addresses of creameries and cheese factories. Eugene Davenport. 1 p. (Ill. Agr. Expt. Sta. Circ. 29.)
- A study of the cause of mottled butter. C. F. Doane. p. 43-54.
(Md. Agr. Expt. Sta. Bul. 64.)
- Notes upon dairying in California and the export of California butter to the Orient. R. A. Pearson. 29 p. (U. S. Dept. Agr. Bur. Anim. Indus. Bul. 24.)
1901. A bacteriological study of the college creamery milk supply; a case of putrid butter. C. H. Eckles. --Purification of milk by the centrifugal separator. C. H. Eckles and S. E. Barnes. p. 37-59.
(Iowa Agr. Expt. Sta. Bul. 59.)
- Creameries and cheese factories of western Oregon. F. L. Kent.
p. 27-60. (Oreg. Agr. Expt. Sta. Bul. 65.)
- Household tests for the detection of oleomargarine and renovated butter. G. E. Patrick. 11 p. (U. S. Dept. Agr. Farmers' Bul. 131.)

SUBJECT LIST.

DAIRY PRODUCTS.

Butter. (Cont.)

1902. Dairy herd record and creamery notes. R. W. Clark. p.183-203.
(Ala.Agr.Expt.Sta.Bul.121.)

Circular of information on building and equipping creameries, with instructions how to organize and maintain co-operative creamery associations in South Dakota. A. H. Wheaton. 14 p. (S.Dak.Agr. Expt.Sta.Bul.73, supp.)

1903. The keeping quality of butter. G. L. McKay and Carl Larsen. 30 p.
(Iowa Agr.Expt.Sta.Bul.71.)

Process butter, a dairy fraud. R. W. Clark and J. A. Crockett.
p.58-61. (Utah Agr.Expt.Sta.Bul.79.)

1904. The relative profits of selling milk, cream, and butter. C. F. Doane.
p.45-56. (Md.Agr.Expt.Sta.Bul.97.)

Creameries and cheese factories: Organization, building and equipment. W. J. Elliott. p.59-88. (Mont.Agr.Expt.Sta.Bul.53.)

The perpetuation of pure cultures for butter starters. E. F. Pernot.
7 p. (Oreg.Agr.Expt.Sta.Bul.83.)

Facts concerning the history, commerce and manufacture of butter.
Harry Hayward. p.177-200. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.56.)

Studies upon the keeping quality of butter. I; Canned butter. L. A. Rogers. 24 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.57.)

1905. Creamery problems. C. L. Beach. p.38-47. (Conn., Storrs, Agr.Expt. Sta.Bul.40.)

The farmers' creamery in Missouri: When and how to build. R. M. Washburn. 21 p. (Mo.Agr.Expt.Sta.Circ.18.)

The proteids of butter in relation to mottled butter. L. L. Van Slyke and E. B. Hart. p.69-93. (N.Y., State, Agr.Expt.Sta.Bul.263.)

Popular ed. The causes and prevention of mottles in butter. F. H. Hall, L. L. Van Slyke, and E. B. Hart. 10 p.

Some creamery problems. E. H. Farrington. 26 p. (Wis.Agr.Expt.Sta. Bul.129.)

The manufacture of whey butter at Swiss cheese factories. E. H. Farrington. 32 p. (Wis.Agr.Expt.Sta.Bul.132.) Issued in two forms, one of which includes a German translation.

SUBJECT LIST.

DAIRY PRODUCTS.

Butter. (Cont.)

- 1906.. Effect of bacteria in wash water of butter. C. W. Melick. p.213-222. (Kans.Agr.Expt.Sta.Bul.138.)
- Gathered cream plants. John Michels. 12 p. (S.C.Agr.Expt.Sta. Bul.118.)
- Development of factory dairying in Wisconsin, with map showing location of cheese factories and creameries. H. L. Russell and U.S. Baer. 18 p. (Wis.Agr.Expt.Sta.Bul.140.)
- Renovated butter: Its origin and history. Levi Wells. p.393-398. (U.S.Dept.Agr.Yearbook,1905, Sep.390.)
- Investigations in the manufacture and storage of butter. I, The keeping qualities of butter made under different conditions and stored at different temperatures. C. E. Gray.-- With remarks on the scoring of the butter by G. L. McKay. 24 p. (U.S.Dept.Agr. Bur.Anim.Indus.Bul.84.)
- Investigations in the manufacture and storage of butter. II, Preventing molds in butter tubs. L. A. Rogers. 13 p. (U.S.Dept. Agr.Bur.Anim.Indus.Bul.89.)
1907. The practical use of starters. L. D. Bushnell and W. R. Wright. p.139-151. (Mich.Agr.Expt.Sta.Bul.246.)
- A comparison of aniline and anatto butter colors in butter making. E. H. Farrington and Martin Meyers. 19 p. (Wis.Agr.Expt.Sta. Bul.152.)
1908. Keeping qualities of butter: I, General studies. W. S. Sayer, Otto Rahn, and Bell Farrand. 61 p. (Mich.Agr.Expt.Sta.Tech.Bul.1.)
- A simple method of keeping creamery records. B. D. White. 12 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.126.)
- Tubercle bacilli in butter: Their occurrence, vitality and significance. E. C. Schroeder and W. E. Cotton. 22 p. (U.S.Dept.Agr. Bur.Anim.Indus.Circ.127.)
- Paraffining butter tubs. L. A. Rogers. 6 p. (U.S.Dept.Agr.Bur. Anim.Indus.Circ.130.)
1909. Butter scoring contest, 1909. H. A. Hopper. 20 p. (Calif.Agr. Expt.Sta.Circ.43.)

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DAIRY PRODUCTS.

Butter. (Cont.)

1909. The use of starters in butter-making. F. W. Bouska. p.217-229.
(Iowa Agr. Expt. Sta. Bul.103.)
- Keeping qualities of butter: II, The influence of salt; III, the decomposition of proteins. Otto Rahn, C. W. Brown, and L. M. Smith.
44 p. Mich.Agr.Expt.Sta.Tech.Bul.2.)
- A study of Pennsylvania butter. H. E. Van Norman and C. W. Lawson.
14 p. (Pa.Agr.Expt.Sta.Bul.93.)
- A study of South Dakota butter with suggestions for improvements.
Christian Larsen and J. H. Shepard. p.453-482. (S.Dak.Agr.Expt.
Sta.Bul.111.)
- Acidity of creamery butter and its relation to quality. Christian
Larsen, T. H. Lund, and L. F. Miller. p.573-594. (S.Dak.Agr.Expt.
Sta.Bul.116.) Bul.122 is a continuation of Bul.116.
- The propagation of pure starters for butter and cheese making. E. G.
Hastings. 17 p. (Wis.Agr.Expt.Sta.Bul.131.)
- The Wisconsin butter and cheese scoring exhibitions. E. H. Farrington
and M. Michels. 42 p. (Wis.Agr.Expt.Sta.Bul.132.)
- The propagation of pure culture starters for butter and cheese making.
E. H. Farrington and E. C. Hastings. 4 p. (Wis.Agr.Expt.Sta.Circ.
of Inform.2.)
- The influence of acidity of cream on the flavor of butter. L. A.
Rogers and C. E. Gray. 22 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.114.)
- Fishy flavor in butter. L. A. Rogers. 20 p. (U.S.Dept.Agr.Bur.Anim.
Indus.Circ.146.)
1910. Butter making: Clean milk and commercial starters as factors in but-
ter making. W. G. Sackett. 14 p. (Colo.Agr.Expt.Sta.Bul.156.)
- Lactic cultures for dairy purposes. Prepared by the bacteriological
laboratory. p.53-55. (Mich.Agr.Expt.Sta.Circ.7.)
- Creamery butter: 1, Factors affecting acidity; 2, the acid test as a
measure of deterioration; 3, handling cream to improve quality of
butter. Christian Larsen, T. H. Lund, and L. F. Miller. p.701-730.
(S.Dak.Agr.Expt.Sta.Bul.122.) Continuation of Bul.116.
- Milk powder starters in creameries. Christian Larsen and W. White.
14 p. (S.Dak.Agr.Expt.Sta.Bul.123.)

SUBJECT LIST.

DAIRY PRODUCTS.

Butter. (Cont.)

1910. Whey butter. C. F. Doane. 7 p. (U.S.Dept.Agr.Bur.Anim.Indus. Circ.161.)

Meyer, M. H. Modern butter making and dairy arithmetic. Madison, Wis., The author. 306 p.

1911. Butter scoring contest, 1910. L. M. Davis. 27 p. (Calif.Agr. Expt.Sta.Circ.60.)

Creamery bookkeeping. Martin Mortensen. p.305-322. (Iowa Agr. Expt.Sta.Bul.121.) Superseded by Circ.68.

Propagation of starter for butter-making and cheese-making. E. S. Guthrie. p.13-16. (N.Y., Cornell, Agr.Expt.Sta.Circ.10.) Rev.by Circ.13.

1912. A study of Idaho butter with suggestions for improvement. G. E. Frevert. 52 p. (Idaho Agr.Expt.Sta.Bul.73.)

Better butter for Kansas; a circular-explaining the relation between the quality of butter and prices paid for butter fat. D. S. Burch. 4 p. (Kans.Agr.Expt.Sta.Circ.21.)

Better butter for Kansas; a circular explaining how dirt and bacteria get into cream and the effect they have on butter-fat prices. D. S. Burch. 4 p. (Kans.Agr.Expt.Sta.Circ.24.)

Propagation of starter for butter making and cheese making. E. S. Guthrie and W. W. Fisk. 4 p. (N.Y., Cornell, Agr.Expt.Sta.Circ. 13.) Rev.of Circ.10.

Organizing cow-testing associations and co-operative creameries. G. L. Martin. 26 p. (N.Dak.Agr.Expt.Sta.Bul.102.)

The manufacture of butter for storage. L. A. Rogers, S. C. Thompson and J. R. Keithley. 27 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.148.)

Increasing creamery profits by handling special products and utilizing by-products. S. C. Thompson. p.297-306. (U.S.Dept.Agr. Bur.Anim.Indus.Circ.183.)

A simple butter color standard. S. H. Ayers. 3 p. (U.S.Dept.Agr. Bur.Anim.Indus.Circ.200.)

1913. Creamery organization and construction, Part I, [Text.] Martin Mortensen and J. B. Davidson. p.100-146. (Iowa Agr.Expt.Sta. Bul.139.)

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DAIRY PRODUCTS.

Butter. (Cont.)

1913. Creamery organization and construction, Part II, building plans.
(Iowa Agr.Expt.Sta.Bul.139.)
- Creamery organization and management. R. C. Jones. p.67-74. (Mont.
Agr.Expt.Sta.Circ.23.)
- Factors influencing the change in flavor in storage butter. L. A.
Rogers, W. N. Berg, C. R. Pottleiger and B. J. Davis. 69 p. (U.S.
Dept.Agr.Bur.Anim.Indus.Bul.162.)
- The utilization of exhaust steam for heating boiler feed water and
wash water in milk plants, creameries, and dairies. J. T. Bowen.
13 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.209.)
- Wing, H. H. Milk and its products; a treatise upon the nature and
qualities of dairy milk and the manufacture of butter and cheese.
Rev.and enl. New York, The Macmillan co. 433 p.
1914. Marketing butter and cream in the South. Dairy Division. 3 p. (U.S.
Dept.Agr.Bur.Anim.Indus.[Pub.])
- Shall southern farmers build creameries? Dairy Division. 3 p. (U.S.
Dept.Agr.Bur.Anim.Indus.[Pub.])
1915. The yellow color in cream and butter. L. S. Palmer. p.41-46. (Mo.
Agr.Expt.Sta.Circ.74.)
- Two factors causing variation in the weight of print butter. H. M.
Pickerill and E. S. Guthrie. p.99-111. (N.Y., Cornell, Agr.Expt.
Sta.Bul.355.)
- Organization and construction of creameries and cheese factories.
E. H. Farrington and G. H. Benkendorf. 51 p. (Wis.Agr.Expt.Sta.
Bul.244.)
- The disposal of creamery sewage. E. H. Farrington and G. J. Davis,
jr. 20 p. (Wis.Agr.Expt.Sta.Bul.245.)
- Making whey butter at cheddar cheese factories. J. L. Sammis. 24 p.
(Wis.Agr.Expt.Sta.Bul.246.)
- Moldiness in butter. Charles Thom and R. H. Shaw. (U.S.Dept.Agr.
Jour.Agr.Res.v.III,no.4,p.301-310.)
1916. Creamery records. O. W. Holmes. 20 p. (Idaho Agr.Expt.Sta.Bul.90.)

SUBJECT LIST.

DAIRY PRODUCTS.

Butter. (Cont.)

1916. Keeping qualities of butter: IV, Cream ripening and its influence (contribution): Bacteria in cream, their numbers and types and their itinerary in the manufacture of butter. C. W. Brown and Kurt Peiser. 20 p. (Mich.Agr.Expt.Sta.Tech.Bul.29.)

Keeping qualities of butter: V, Pasteurization and its influence (contribution): A study of the factors which influence the resistance of lactic acid bacteria to heat. C. W. Brown and Kurt Peiser. 18 p. (Mich.Agr.Expt.Sta.Tech.Bul.30.)

The marketing of Wisconsin butter. B. H. Hibbard and Asher Hobson. 69 p. (Wis.Agr.Expt.Sta.Bul.270.)

Progressive oxidation of cold-storage butter. D. C. Dyer. (U.S. Dept.Agr.Jour.Agr.Res.v.VI,no.24,p.927-952.)

Wiest, Edward. The butter industry in the United States; an economic study of butter and oleomargarine. New York, Columbia university press. 264 p.

1917. The marketing of Kansas butter. Theodore Macklin. 79 p. (Kans. Agr.Expt.Sta Bul.216.)

Cooperative creameries and cheese factories in Minnesota, 1914. E. D. Durand and Frank Robotka. 55 p. (Minn.Agr.Expt.Sta.Bul. 166.)

Marketing creamery butter. R. C. Potts and H. F. Meyer. 38 p. (U.S.Dept.Agr.Bul.456.)

Accounting records for country creameries. J. R. Humphrey and G. A. Nahstoll. 37 p. (U.S.Dept.Agr.Bul.559.)

Enzymes of milk and butter. R. W. Thatcher and A. C. Dahlberg. (U.S.Dept.Agr.Jour.Agr.Res.v.XI,no.9,p.437-450.)

Stocking, W. A. Manual of milk products. New York, The Macmillan co. 578 p.

1918. Butterfat losses in creameries. R. M. Washburn, A. C. Dahlberg, James Sorenson and M. P. Mortensen. 12 p. (Minn.Agr.Expt.Sta. Bul.177.)

A study of prices and quality of creamery butter. G. P. Warber. 24 p. (U.S.Dept.Agr.Bul.682.)

Marketing practices of Wisconsin and Minnesota creameries. R. C. Potts. 15 p. (U.S.Dept.Agr.Bul.690.)

SUBJECT LIST.

DAIRY PRODUCTS.

Butter. (Cont.)

1918. Marketing butter and cheese by parcel post. L. B. Flohr and R. C. Potts. 12 p. (U.S.Dept.Agr.Farmers' Bul.930.)
- Errors in the weight of print butter; their causes and prevention. H. Runkel and H. M. Roeser. 15 p. (U.S.Dept.Agr.Off.Sec.Circ.95.)
- Guthrie, E. S. The book of butter; a text on the nature, manufacture and marketing of the product. New York, The Macmillan co. 270 p.
1919. The volatile acid production of starters and of organisms isolated from them. B. W. Hammer and D. E. Bailey. p.223-246. (Iowa Agr. Expt.Sta.Res.Bul.55.)
- The lecithin content of butter and its possible relationship to the fishy flavor. G. C. Sapplee. p.97-151. (N.Y., Cornell, Agr.Expt. Sta.Mem.29.)
- The economical use of fuel in milk plants and creameries. J. T. Bowen. 47 p. (U.S.Dept.Agr.Bul.747.)
- Trend of the butter industry in the United States and other countries. Simple charts with interpretations. T. R. Pirtle. 24 p. (U.S. Dept.Agr.Dept.Circ.70.)
- The inspection of butter under the food products inspection law. Bureau of Markets. 23 p. (U.S.Dept.Agr.Bur.Markets Serv.& Reg.An- nouncement 51.)
1920. Volatile acid production of S. lacticus and the organisms associated with it in starters. B. W. Hammer. p.59-96. (Iowa Agr.Expt.Sta. Res.Bul.63.)
- Phosphorus in butter. J. T. Cusick. p.155-187. (N.Y., Cornell, Agr. Expt.Sta.Mem.30.)
- A classification of ledger accounts for creameries. G. O. Knapp, B. B. Mason and A. V. Swarthout. 40 p. (U.S.Dept.Agr.Bul.865.)
- Hunziker, O. F. The butter industry. LaGrange, Ill., The author. 710 p.
1921. Sources of the flavor in butter. B. W. Hammer. p.139-144. (Iowa Agr.Expt.Sta.Res.Bul.67.)
- Creamery bookkeeping. Martin Mortensen. 19 p. (Iowa Agr.Expt.Sta. Circ.63.) Supersedes Bul.121.

SUBJECT LIST.

DAIRY PRODUCTS.

Butter. (Cont.)

1921. Mortensen, Martin. Management of dairy plants. New York, The Macmillan co. 358 p.
1922. Influence of acidity on flavor and keeping quality of butter. M. Mortensen. p.87-96. (Iowa Agr.Expt.Sta.Bul.207.)
- Defects in the quality of butter. C. W. Fryhofer. 14 p. (U.S. Dept.Agr.Dept.Circ.236.)
- McKay, G. L. Principles and practice of butter-making, by G. L. McKay and C. Larsen. 3d ed. largely rewritten. New York, John Wiley & sons, inc. 405 p.
1923. Butter, Cheese & Egg Journal. Milwaukee, Wis. Weekly. \$2.00; Canada and Foreign, \$2.50.
- Creamery and Milk Plant Monthly. Chicago, Ill. \$1.00; Canada, \$1.25; Foreign, \$1.50.
- Creamery Journal. Waterloo, Iowa. Semi-monthly. \$.75; Canada, \$1.00; Foreign countries in Postal Union, \$2.00.
- Dairy Record. St. Paul, Minn. Weekly. \$1.50; Canada and Foreign, \$2.00.
- National Poultry, Butter and Egg Journal. Chicago, Ill. Monthly. \$3.00; Canada, \$3.25; Foreign, \$3.50.

Butter. Composition and Tests.

1900. I, Cream testing. C. H. Eckles.-- II, Influence of certain conditions in churning on the amount of water in butter; III, A study of butter increasers. J. B. Weems and F. W. Bouska. p.31-67. (Iowa Agr.Expt.Sta.Bul.52.)
1903. The water content of creamery butter. H. E. Alvord. 4 p. (U.S. Dept.Agr.Bur.Anim.Indus.Circ.39.)
1904. The moisture content of butter and methods of controlling it. G. L. McKay and Carl Larsen. p.137-166. (Iowa Agr.Expt.Sta.Bul.76.)
- Report of the Iowa educational butter contest; salt in butter. G. L. McKay and Carl Larsen. p.305-334. (Iowa Agr.Expt.Sta.Bul.80.)
1906. A rapid method for the determination of water in butter. C. E. Gray. 6 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.100.)

SUBJECT LIST.

DAIRY PRODUCTS. Butter.

Composition and Tests. (Cont.)

1907. Preliminary report on the water content, melting point, and keeping quality of butter. John Michels and F. S. Shiver. 14 p. (S.C. Agr. Expt. Sta. Bul. 125.)

A creamery method for the determination of water in butter. E. H. Farrington. 19 p. (Wis. Agr. Expt. Sta. Bul. 154.)

1908. Methods of determining the moisture content of butter. G. L. McKay and John Bower. 39 p. (Iowa Agr. Expt. Sta. Bul. 97.)

A study of moisture in butter. G. L. McKay and John Bower. p. 156-177. (Iowa Agr. Expt. Sta. Bul. 101.)

1909. A study of factors influencing the composition of butter. C. E. Lee, N. W. Hepburn, and J. M. Barnhart. p. 314-366. (Ill. Agr. Expt. Sta. Bul. 137.)

Composition of market butter. C. E. Lee and J. M. Barnhart. p. 441-457. (Ill. Agr. Expt. Sta. Bul. 139.)

1910. Some creamery problems and tests. L. M. Davis. 14 p. (Calif. Agr. Expt. Sta. Circ. 54.)

Butter moisture-tests. H. E. Ross. p. 401-413. (N.Y., Cornell, Agr. Expt. Sta. Bul. 281.)

The determination of salt in butter at the creamery. J. L. Sammis. 7 p. (Wis. Agr. Expt. Sta. Circ. of Inform. 14.)

1912. Moisture control of butter: I, Factors not under the control of the butter-maker. O. F. Hunziker, H. C. Mills, and George Spitzer. p. 235-360. (Ind. Agr. Expt. Sta. Bul. 159.)

Moisture control of butter: II, Conditions under control of the butter maker; methods of moisture control; factors which influence the per cent of moisture found in butter after manufacture. O. F. Hunziker, H. C. Mills, and George Spitzer. p. 365-419. (Ind. Agr. Expt. Sta. Bul. 160.)

"Mony meikles mak a muckle": Studies of the rennet coagulation of milk. R. M. Washburn and A. P. Bigelow.-- The control of the moisture content of butter. C. L. Beach, A. P. Bigelow and R. H. Allen.-- A bacterial infection of condensed milk. L. A. Thayer.-- The value of the escutcheon in judging dairy cattle. C. F. Moran.-- Mock silage. C. L. Beach. p. 120-127. (Vt. Agr. Expt. Sta. Bul. 170.)

Better cream through grading; a new butter moisture test. G. H. Bendorff. 14 p. (Wis. Agr. Expt. Sta. Bul. 220.)

SUBJECT LIST.

DAIRY PRODUCTS. Butter.
Composition and Tests. (Cont.)

1912. The normal composition of American creamery butter. S. C. Thompson, R. H. Shaw and R. P. Norton. 31 p. (U.S.Dept.Agr.Bur.Anim.Indus. Bul.149.)

A new method for determining fat and salt in butter, especially adapted for use in creameries. R. H. Shaw. 8 p. (U.S.Dept.Agr. Bur.Anim.Indus.Circ.202.)

1913. Distribution of moisture and salt in butter. E. S. Guthrie and H. E. Ross. p.3-21. (N.Y., Cornell, Agr.Expt.Sta.Bul.336.)

1920. A comparison of methods for estimating fat in butter. H. W. Gregory, P. S. Lucas and George Spitzer. 11 p. (Ind.Agr.Expt.Sta. Bul.244.)

Making.

1901. Experiments in butter making and cheese making. F. B. Linfield. 54 p. (Utah Agr.Expt.Sta.Bul.73.)

1903. Suggestions concerning the care of milk and butter making on the farm. H. E. Van Norman. 36 p. (Ind.Agr.Expt.Sta.Bul.96.)

1905. Butter making on the farm. E. H. Webster. 31 p. (U.S.Dept.Agr. Farmers' Bul.241.) Superseded by Farmers' Bul.876.

1906. Care of milk on the farm and the manufacture of butter and cheese. R. W. Clark.-- [Canning and paraffining cheese]. R. W. Clark and J. A. Crockett. p.113-135. (Utah Agr.Expt.Sta.Bul.96.)

1908. Some essentials in farm butter-making. Fred Rasmussen. 2 p. (N.H.Agr.Expt.Sta.Circ.7.)

1909. Handling of cream and making of butter on the farm. C. E. Lee. 10 p. (Ill.Agr.Expt.Sta.Circ.151.)

Butter-making in Maryland. C. W. Melick. p.225-284. (Md.Agr. Expt.Sta.Bul.135.)

A study of farm buttermaking in New Hampshire. Fred Rasmussen. p.247-280. (N.H.Agr.Expt.Sta.Bul.141.)

1910. Farm butter making. H. M. Bainer. 16 p. (Colo.Agr.Expt.Sta.Bul. 163.)

Meyer, M. H. Modern butter making and dairy arithmetic. Madison, Wis., The author. 306 p.

SUBJECT LIST.

DAIRY PRODUCTS. Butter.
Making. (Cont.)

1911. Farm butter making. G. H. Tourgee. 4 p. (Ark.Agr.Expt.Sta.Circ.6.)
- Butter making on the farm. J. M. Trueman. p.193-210. (Conn., Storrs, Agr.Expt.Sta.Bul.65.)
- Helps for the dairy butter maker. E. S. Guthrie. p.17-20. (N.Y., Cornell, Agr.Expt.Sta.Circ.11.)
- Butter-making on the farm. A. B. Nystrom. 4 p. (Wash.Agr.Expt.Sta. Pop.Bul.41.)
- Michels, John. Creamery butter making. 6th ed.rev.and enl. Milwaukee, Wis., The author. 361 p.
1912. The manufacture of butter for storage. L. A. Rogers, S. C. Thompson and J. R. Keithley. 27 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.148.)
1913. Farm butter-making; creamery industry in Montana. R. C. Jones. p.113-152. (Mont.Agr.Expt.Sta.Circ.32.)
- Farm butter making. J. R. Keithley. 28 p. (U.S.Dept.Agr.Farmers' Bul.541.) Superseded by Farmers' Bul.876.
- Wing, H. H. Milk and its products; a treatise upon the nature and qualities of dairy milk and the manufacture of butter and cheese. Rev.and enl. New York, The Macmillan co. 433 p.
1914. Making farm butter in the South. Dairy Division. 4 p. (U.S.Dept. Agr.Bur.Anim.Indus.[Pub.])
1915. A study of the manufacture of dairy butter; methods of making farm butter. E. L. Anthony. 30 p. (Pa.Agr.Expt.Sta.Bul.135.)
- Butter-making on the farm. A. B. Nystrom and R. E. Hundertmark. 23 p. (Wash.Agr.Expt.Sta.Pop.Bul.96.)
1916. Making butter and cheese on the farm. Christian Larsen and V. R. Jones. p.345-375. (S.Dak.Agr.Expt.Sta.Bul.164.)
- Suggestions for the manufacture and marketing of creamery butter in the South. R. C. Potts and William White. 12 p. (U.S.Dept.Agr. Off.Sec.Circ.66.)
- Illustrated lecture on how to make good farm butter. J. H. McClain. 10 p. (U.S.Dept.Agr.Syllabus 19.)

SUBJECT LIST.

DAIRY PRODUCTS. Butter.
Making. (Cont.)

1917. Stocking, W. A. Manual of milk products. New York, The Macmillan co. 578 p.
1918. Guthrie, E. S. The book of butter; a text on the nature, manufacture and marketing of the product. New York, The Macmillan co. 270 p.
1919. How teachers may use Farmers' Bul. 876; Making butter on the farm. E. H. Sninn. 4 p. (U.S. Dept. Agr. Dept. Circ. 69.)
1920. Hunziker, O. F. The butter industry. LaGrange, Ill.; The author. 710 p.
1921. Making butter on the farm. William White. 24 p. (U.S. Dept. Agr. Farmers' Bul. 876, rev.) 1st ed., 1917. Supersedes Farmers' Buls. 241, 541.
1922. Butter-making on the Arizona farm. W. S. Cunningham. 8 p. (Ariz. Agr. Expt. Sta. Timely Hints for Farmers 137.)
- McKay, G. L. Principles and practice of butter-making, by G. L. McKay and C. Larsen. 3d ed. largely rewritten. New York, John Wiley & sons, inc. 405 p.

DAIRY PRODUCTS. Cheese.

1900. Circular of inquiry concerning addresses of creameries and cheese factories. Eugene Davenport. 1 p. (Ill. Agr. Expt. Sta. Circ. 29.)
1901. Creameries and cheese factories of western Oregon. F. L. Kent. p. 27-60. (Oreg. Agr. Expt. Sta. Bul. 65.)
1904. Creameries and cheese factories: Organization, building and equipment. W. J. Elliott. p. 59-88. (Mont. Agr. Expt. Sta. Bul. 53.)
- Canning cheese. E. F. Pernot. 8 p. (Oreg. Agr. Expt. Sta. Bul. 73.)
1906. Care of milk on the farm and the manufacture of butter and cheese. R. W. Clark. -- [Canning and paraffining cheese]. R. W. Clark and J. A. Crockett. p. 113-135. (Utah Agr. Expt. Sta. Bul. 96.)
- Development of factory dairying in Wisconsin, with map showing location of cheese factories and creameries. H. L. Russell and U. S. Baer. 18 p. (Wis. Agr. Expt. Sta. Bul. 140.)
1907. The practical use of starters. L. D. Bushnell and W. R. Wright. p. 139-151. (Mich. Agr. Expt. Sta. Bul. 246.)

SUBJECT LIST.

DAIRY PRODUCTS.

Cheese. (Cont.)

1908. Varieties of cheese: Descriptions and analyses. C. F. Doane and H. W. Lawson. 72 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.105.) Rev. by U.S. Dept.Agr.Bul.603.
1909. Fancy cheeses for the farm and factory. C. A. Publow. p.3-12. (N.Y., Cornell,Agr.Expt.Sta.Bul.270.)
- The propagation of pure starters for butter and cheese making. E. G. Hastings. 17 p. (Wis.Agr.Expt.Sta.Bul.181.)
- The Wisconsin butter and cheese scoring exhibitions. E. H. Farrington and M. Michels. 42 p. (Wis.Agr.Expt.Sta.Bul.182.)
- The propagation of pure culture starters for butter and cheese making. E. H. Farrington and E. G. Hastings. 4 p. (Wis.Agr.Expt.Sta.Circ. of Inform.2.)
- Van Slyke, L. L. The science and practice of cheese-making; a treatise on the manufacture of American cheddar cheese and other varieties, intended as a text-book for the use of dairy teachers and students in classroom and workroom, by L. L. Van Slyke and C. A. Publow. New York, Orange Judd publishing co. 433 p.
1910. Lactic cultures for dairy purposes. Prepared by the bacteriological laboratory. p.53-55. (Mich.Agr.Expt.Sta.Circ.7.)
- Publow, C. A. Fancy cheese in America, from the milk of cows, sheep and goats. Chicago, American sheep breeder co. 96 p.
1911. Propagation of starter for butter-making and cheese-making. E. S. Guthrie. p.13-16. (N.Y.,Cornell,Agr.Expt.Sta.Circ.10.) Rev.by Circ.13.
- Cheese and other substitutes for meat in the diet. C. F. Langworthy. p.359-370. (U.S.Dept.Agr.Yearbook,1910.Sep.543.)
- Varieties of cheese: Descriptions and analyses. C. F. Doane and H. W. Lawson. 78 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.146.) Rev. by U.S.Dept.Agr.Bul.603.
- The digestibility of cheese. C. F. Doane, in cooperation with the Office of experiment stations. 22 p. (U.S.Dept.Agr.Bur.Anim.Indus. Circ.166.)
1912. Propagation of starter for butter making and cheese making. E. S. Guthrie and W. W. Fisk. 4 p. (N.Y.,Cornell,Agr.Expt.Sta.Circ.13.) Rev.of Circ.10.

SUBJECT LIST.

DAIRY PRODUCTS.

Cheese. (Cont.)

1912. Cheese and its economical uses in the diet. C. F. Langworthy and C. L. Hunt. 40 p. (U.S.Dept.Agr.Farmers' Bul.437.)
1913. Wing, H. H. Milk and its products; a treatise upon the nature and qualities of dairy milk and the manufacture of butter and cheese. Rev.and enl. New York, The Macmillan co. 433 p.
1914. Some improved dairy tests and methods: I. One way to determine the overrun in the making of ice cream. G. H. Benkendorf.-- II. A burette for calibrating Babcock test bottles. G. H. Benkendorf. -- III. A wire cheese curd knife. G. H. Benkendorf and A. T. Bruhn.-- IV. An attachment for the milk sediment tester. A. C. Baer.-- V. Cheese making tests with homogenized milk. J. L. Sammis. 19 p. (Wis.Agr.Expt.Sta.Bul.241.)
1915. Organization and construction of creameries and cheese factories. E. H. Farrington and G. H. Benkendorf. 51 p. (Wis.Agr.Expt.Sta. Bul.244.)
1917. Cooperative creameries and cheese factories in Minnesota, 1914. E. D. Durand and Frank Robotka. 53 p. (Minn.Agr.Expt.Sta.Bul. 166.)
- A federated cooperative cheese manufacturing and marketing association. Hector Macpherson and W. H. Kerr. p.145-157. (U.S.Dept. Agr.Yearbook,1916,Sep.699.)
- Stocking, W. A. Manual of milk products. New York, The Macmillan co. 578 p.
1918. Varieties of cheese: Descriptions and analyses. C. F. Doane and H. W. Lawson. 80 p. (U.S.Dept.Agr.Bul.608.) Rev.of U.S.Dept. Agr.Bur.Anim.Indus.Buls.105, 146.
- Marketing butter and cheese by parcel post. L. B. Flohr and R. C. Potts. 12 p. (U.S.Dept.Agr.Farmers' Bul.930.)
- Thom, Charles. The book of cheese, by Charles Thom and W. W. Fisk. New York, The Macmillan co. 392 p.
1919. Jack cheese. H. S. Baird. 11 p. (Calif.Agr.Expt.Sta.Circ.206.)
- The volatile acid production of starters and of organisms isolated from them. B. W. Hammer and D. E. Bailey. p.223-246. (Iowa Agr. Expt.Sta.Res.Bul.55.)

SUBJECT LIST.

DAIRY PRODUCTS.

Cheese. (Cont.)

1919. Trend of the cheese industry in the United States and other countries. Simple charts with interpretations. T. R. Pirtle. 24 p. (U.S. Dept. Agr. Dept. Circ. 71.)
1920. Volatile acid production of S. lacticus and the organisms associated with it in starters. B. W. Hammer. p. 59-96. (Iowa Agr. Expt. Sta. Res. Bul. 63.)
1921. The microscopic study of bacteria in cheese. G. J. Hucker. 11 p. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 87.) Also in U.S. Dept. Agr. Jour. Agr. Res. 22(1921), no. 2, p. 93-100.
1922. Motion pictures of the U. S. Department of Agriculture [including films on dairying]. 13 p. (U.S. Dept. Agr. Dept. Circ. 233.)
1923. Butter, Cheese & Egg Journal. Milwaukee, Wis. Weekly. \$2.00; Canada and Foreign, \$2.50.

Cheese. Camembert.

1905. The Camembert type of soft cheese in the United States. H. W. Conn. [and others]. 32 p. (Conn., Storrs, Agr. Expt. Sta. Bul. 35.) Also issued as U.S. Dept. Agr. Bur. Anim. Indus. Bul. 71.
- The Camembert type of soft cheese in the United States. H. W. Conn. [and others]. 29 p. (U.S. Dept. Agr. Bur. Anim. Indus. Bul. 71.) Also issued as Conn., Storrs, Agr. Expt. Sta. Bul. 35.
1906. Fungi in cheese ripening: Camembert and Roquefort. Charles Thom. 39 p. (U.S. Dept. Agr. Bur. Anim. Indus. Bul. 82.)
1907. Directions for making the Camembert type of cheese. T. Issajeff. p. 57-75. (Conn., Storrs, Agr. Expt. Sta. Bul. 46.) Also issued as U.S. Dept. Agr. Bur. Anim. Indus. Bul. 98.
- Chemical studies of Camembert cheese. A. W. Bosworth. p. 23-39. (N.Y., State, Agr. Expt. Sta. Tech. Bul. 5.)
- Investigations in the manufacture and curing of cheese. VII, Directions for making the Camembert type of cheese. T. W. Issajeff. 21 p. (U.S. Dept. Agr. Bur. Anim. Indus. Bul. 98.) Also issued as Conn., Storrs, Agr. Expt. Sta. Bul. 46.
1908. Proteolytic changes in the ripening of Camembert cheese. A. W. Dox. 24 p. (U.S. Dept. Agr. Bur. Anim. Indus. Bul. 109.)
1909. Camembert cheese problems in the United States. Charles Thom. p. 311-374. (Conn., Storrs, Agr. Expt. Sta. Bul. 58.) Also issued as U.S. Dept. Agr. Bur. Anim. Indus. Bul. 115.

SUBJECT LIST.

DAIRY PRODUCTS. Cheese.
Camembert. (Cont.)

1909. Camembert cheese problems in the United States. Charles Thom. 54 p.
(U.S.Dept.Agr.Bur.Anim.Indus.Bul.115.) Also issued as Conn., Storrs,
Agr.Expt.Sta.Bul.58.
- The care and testing of Camembert cheese. Charles Thom. p.339-343.
(U.S.Dept.Agr.Bur.Anim.Indus.Circ.145.)
1910. Cultural studies of species of Penicillium. Charles Thom. 109 p.
(U.S.Dept.Agr.Bur.Anim.Indus.Bul.118.)
- The intracellular enzymes of Penicillium and Aspergillus, with special
reference to those of Penicillium camemberti. A. W. Dox. 70 p.
(U.S.Dept.Agr.Bur.Anim.Indus.Bul.120.)
1914. Studies relating to the Roquefort and Camembert type of cheese.
Charles Thom, J. N. Currie and K. J. Matheson. p.335-394. (Conn.,
Storrs,Agr.Expt.Sta.Bul.79.)
1915. Bacteriological studies: Bacterial studies of Camembert cheese;
tests and comparisons of commercial lactic starters; tests of vari-
ous brands of litmus for bacteriological work; the bacterial con-
tent of ice cream. W. M. Esten and C. J. Mason. p.103-135. (Conn.,
Storrs,Agr.Expt.Sta.Bul.83.)

Cheddar.

1900. A popular discussion of pure milk supply. C. E. Marshall. p.173-
191.-- Gassy curd and cheese. C. E. Marshall. p.193-205. (Mich.
Agr.Expt.Sta.Buls.182-183.)
- Notes on some dairy troubles: Introductory.- flavor in milk and its
products; I, fishy flavor in milk; II, bitter flavor in Neufchatel
cheese; III, sweet flavor in cheddar cheese; IV, rusty spot in
cheddar cheese. H. A. Harding, L. A. Rogers and G. A. Smith.
p.173-193. (N.Y., State,Agr.Expt.Sta.Bul.183.)
- Popular ed. Dairy disagreeables busy the bacteriologists. F. H.
Hall, H. A. Harding, L. A. Rogers, and G. A. Smith. 9 p.
- The influence of the temperature of curing upon the commercial qual-
ity of cheese. G. A. Smith. p.195-203. (N.Y., State,Agr.Expt.
Sta.Bul.184.)
- Popular ed. Cold-cured cheese. [I]. F. H. Hall and G. A. Smith.
2 p.
1901. Experiments in curing cheese. G. L. McKay. 14 p. (Iowa Agr.Expt.
Sta.Bul.57.)

SUBJECT LIST.

DAIRY PRODUCTS. Cheese.
Cheddar. (Cont.)

1901. A study of enzymes in cheese. L. L. Van Slyke, H. A. Harding, and E. B. Hart. p.215-244. (N.Y., State, Agr.Expt.Sta.Bul.203.)

Popular ed. Some problems in cheese curing: What produces casein changes? F. H. Hall, L. L. Van Slyke, H. A. Harding and E. B. Hart -- How can loss of weight be controlled? F. H. Hall and L. L. Van Slyke. 16 p. (N.Y., State, Agr.Expt.Sta.Buls.203, 207.)

Conditions affecting weight lost by cheese in curing. L. L. Van Slyke p.275-305. (N.Y., State, Agr.Expt.Sta.Bul.207.)

Popular ed. Some problems in cheese curing: What produces casein changes? F. H. Hall, L. L. Van Slyke, H. A. Harding and E. B. Hart.-- How can loss of weight be controlled? F. H. Hall and L. L. Van Slyke. 16 p. (N.Y., State, Agr.Expt.Sta.Buls.203, 207.)

Experiments in butter making and cheese making. F. B. Linfield. 54 p (Utah Agr.Expt.Sta.Bul.73.)

1902. A study of some of the salts formed by casein and paracasein with acids: Their relations to American cheddar cheese. L. L. Van Slyke and E. B. Hart. p.53-79. (N.Y., State, Agr.Expt.Sta.Bul.214.)

Popular ed. Some changes in^a ripening cheese. F. H. Hall, L. L. Van Slyke, H. A. Harding, and E. B. Hart. 14 p. (N.Y., State, Agr.Expt. Sta.Buls.214, 215, 219, 231, 233, 236, 237.)

Methods for the estimation of the proteolytic compounds contained in cheese and milk. L. L. Van Slyke and E. B. Hart. p.82-102. (N.Y., State, Agr.Expt.Sta.Bul.215.)

Popular ed. Some changes in a ripening cheese. F. H. Hall, L. L. Van Slyke, H. A. Harding, and E. B. Hart. 14 p. (N.Y., State, Agr. Expt.Sta.Buls.214, 215, 219, 231, 233, 236, 237.)

Some of the compounds present in American cheddar cheese. L. L. Van Slyke and E. B. Hart. p.203-216. (N.Y., State, Agr.Expt.Sta.Bul.219.)

Popular ed. Some changes in a ripening cheese. F. H. Hall, L. L. Van Slyke, H. A. Harding, and E. B. Hart. 14 p. (N.Y., State, Agr.Expt. Sta.Buls.214, 215, 219, 231, 233, 236, 237.)

Control of rusty spot in cheese factories. H. A. Harding and G. A. Smith. p.303-329. (N.Y., State, Agr.Expt.Sta.Bul.225.)

Popular ed. Rusty spot and a remedy. F. H. Hall, H. A. Harding and G. A. Smith. 7 p.

SUBJECT LIST.

DAIRY PRODUCTS. Cheese.
Cheddar. (Cont.)

1902. - Curing of cheddär cheese, with especial reference to cold-curing.
S. M. Babcock and H. L. Russell. 44 p. (Wis.Agr.Expt.Sta.Bul.
94.)

1903. Cheese problems. John Michels. 10 p. (Mich.Agr.Expt.Sta.Spec.
Bul.21.)

The relation of carbon dioxide to proteolysis in the ripening of
cheddar cheese. L. L. Van Slyke and E. B. Hart. p.19-41.
(N.Y., State, Agr.Expt.Sta.Bul.231.)

Popular ed. Some changes in a ripening cheese. F. H. Hall, L. L.
Van Slyke, H. A. Harding, and E. B. Hart. 14 p. (N.Y., State, Agr.
Expt.Sta.Buls.214, 215, 219, 231, 233, 236, 237.)

Rennet-enzyme as a factor in cheese-ripening. L. L. Van Slyke,
H. A. Harding and E. B. Hart. p.67-96. (N.Y., State, Agr.Expt.
Sta.Bul.233.)

Popular ed. Some changes in a ripening cheese. F. H. Hall, L. L.
Van Slyke, H. A. Harding, and E. B. Hart. 14 p. (N.Y., State, Agr.
Expt.Sta.Buls.214, 215, 219, 231, 233, 236, 237.)

Experiments in curing cheese at different temperatures. L. L. Van
Slyke, G. A. Smith and E. B. Hart. p.97-121. (N.Y., State, Agr.
Expt.Sta.Bul.234.) Also issued as a part of U.S.Dept.Agr.Bur.
Anim.Indus.Bul.49, p.71-88.

Popular ed. Cold cured cheese, II. F. H. Hall, L. L. Van Slyke,
G. A. Smith and E. B. Hart. 7 p.

Conditions affecting chemical changes in cheese-ripening. L. L.
Van Slyke and E. B. Hart. p.133-163. (N.Y., State, Agr.Expt.Sta.
Bul.236.)

Popular ed. Some changes in a ripening cheese. F. H. Hall, L. L.
Van Slyke, H. A. Harding, and E. B. Hart. 14 p. (N.Y., State, Agr.
Expt.Sta.Buls.214, 215, 219, 231, 233, 236, 237.)

The rôle of the lactic-acid bacteria in the manufacture and in the
early stages of ripening of cheddar cheese. H. A. Harding.
p.165-180. (N.Y., State, Agr.Expt.Sta.Bul.237.)

Popular ed. Some changes in a ripening cheese. F. H. Hall, L. L.
Van Slyke, H. A. Harding, and E. B. Hart. 14 p. (N.Y., State, Agr.
Expt.Sta.Buls.214, 215, 219, 231, 233, 236, 237.)

SUBJECT LIST.

DAIRY PRODUCTS. Cheese.
Cheddar. (Cont.)

1903. Shrinkage of cold-cured cheese during ripening. S. M. Babcock, H. L. Russell, and U. S. Baer. 30 p. (Wis.Agr.Expt.Sta.Bul.101.)
- Cheese making on the farm. Comp. by H. E. Alvord. 16 p. (U.S.Dept. Agr.Farmers' Bul.166.)
- The cold curing of cheese. Report upon experiments conducted under the auspices of the U. S. Dept. of agriculture, Bureau of animal industry, Dairy division, in cooperation with the Wisconsin agricultural experiment station and the New York agricultural experiment station. S.M. Babcock [and others]. 88 p. (U.S.Dept.Agr. Bur.Anim.Indus.Bul.49.)
1904. The quality of cheese as affected by rape and other green forage plants fed to dairy cows. U. S. Baer and W. L. Carlyle. 16 p. (Wis.Agr.Expt.Sta.Bul.115.)
- The relation of bacteria to the flavors of cheddar cheese. L. A. Rogers. 38 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.62.)
1905. Some of the relations of casein and paracasein to bases and acids, and their application to cheddar cheese. L. L. Van Slyke and E. B. Hart. 37 p. (N.Y., State, Agr.Expt.Sta.Bul.261.)
1906. The cold storage of cheese. (Experiments of 1903-4.) C. B. Lane. 26 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.83.)
- Investigations in the manufacture and curing of cheese. VI. The cold curing of American cheese, with a digest of previous work on the subject. C. F. Doane. 68 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.85.)
1907. Some of the first chemical changes in cheddar cheese; the acidity of the water-extract of cheddar cheese. L. L. Van Slyke and A. W. Bosworth. 22 p. (N.Y., State, Agr.Expt.Sta.Tech.Bul.4.)
1908. Home cheesemaking. W. J. Elliott. 8 p. (Mont.Agr.Expt.Sta.Circ.1.)
- Defects in American cheddar cheese. C. A. Publow. p.3-16. (N.Y., Cornell, Agr.Expt.Sta.Bul.257.)
- Some essentials in cheese-making. C. A. Publow. p.17-24. (N.Y., Cornell, Agr.Expt.Sta.Circ.3.)
- The bacterial flora of cheddar cheese. H. A. Harding and M. J. Prucha. p.121-193. (N.Y., State, Agr.Expt.Sta.Tech.Bu.8.)
- Rusty cans and their effect upon milk for cheese making. G. A. Olsen. 12 p. (Wis.Agr.Expt.Sta.Bul.162.)

SUBJECT LIST.

DAIRY PRODUCTS. Cheese.
Cheddar. (Cont.)

1909. Van Slyke, L. L. The science and practice of cheese-making; a treatise on the manufacture of American cheddar cheese and other varieties, intended as a text-book for the use of dairy teachers and students in classroom and workroom, by L. L. Van Slyke and C. A. Publow. New York, Orange Judd publishing co. 483 p.
1910. Methods of paying for milk at cheese factories. S. M. Babcock, E. H. Farrington and E. B. Hart. 24 p. (Wis.Agr.Expt.Sta.Bul. 197.)
- Factors controlling the moisture content of cheese curds. J. L. Sammis, S. K. Suzuki and F. W. Laabs. 72 p. (Wis.Agr.Expt.Sta. Res.Bul.7.) Also issued as U.S.Dept.Agr.Bur.Anim.Indus.Bul.122. For popular ed. see Wis.Agr.Expt.Sta.Circ.of Inform.20.
- Some improved methods of dairy chemistry analysis: I, A volumetric method for the estimation of casein in cows' milk. E. B. Hart.-- II, The quantitative estimation of lactic acid in cheddar cheese. S. K. Suzuki and E. B. Hart.-- III, The relation of different acids to the precipitation of casein and the solubility of cheese curds in salt solutions. J. L. Sammis and E. B. Hart. p.107-125. (Wis.Agr.Expt.Sta.Res.Bul.10.)
- The production of volatile fatty acids and esters in cheddar cheese and their relation to the development of flavor. S. K. Suzuki, E. G. Hastings and E. B. Hart. p.127-154. (Wis.Agr.Expt.Sta. Res.Bul.11.)
- Factors controlling the moisture content of cheese curds. J. L. Sammis and S. K. Suzuki and F. W. Laabs. 61 p. (U.S.Dept.Agr. Bur.Anim.Indus.Bul.122.) Also issued as Wis.Agr.Expt.Sta.Res.Bul. 7.
- The influence of lactic acid on the quality of cheese of the cheddar type. C. F. Doane. 20 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.123.)
1911. The control of moisture in cheese. J. L. Sammis, F. W. Laabs and S. K. Suzuki. 14 p. (Wis.Agr.Expt.Sta.Circ.of Inform.20.) Popular abstract of Res.Bul.7.
- Methods and results of paraffining cheese. C. F. Doane. 16 p. (U.S. Dept.Agr.Bur.Anim.Indus.Circ.181.)
1912. Composition and properties of some casein and paracasein compounds and their relations to cheese. L. L. Van Slyke and A. W. Bosworth. 32 p. (N.Y., State, Agr.Expt.Sta.Tech.Bul.26.)

SUBJECT LIST.

DAIRY PRODUCTS. Cheese.
Cheddar. (Cont.)

1912. Studies on the factors concerned in the ripening of cheddar cheese.
E. G. Hastings, A. C. Evans and E. B. Hart. p.1-54. (Wis.Agr.Expt.
Sta.Res.Bul.25.)
- The manufacture of cheddar cheese from pasteurized milk. J. L. Sammis
and A. T. Bruhn. p.137-248. (Wis.Agr.Expt.Sta.Res.Bul.27.)
- The bacteriology of cheddar cheese. E. G. Hastings, A. C. Evans and
E. B. Hart. 52 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.150.)
1913. A study of some of the factors influencing the yield and the moisture
content of cheddar cheese. W. W. Fisk. p.515-538. (N.Y., Cornell,
Agr.Expt.Sta.Bul.334.)
- The marketing of Wisconsin cheese. H. C. Taylor, W. A. Schoenfeld
and G. S. Wehrwein. 46 p. (Wis.Agr.Expt.Sta.Bul.251.)
- The manufacture of cheese of the cheddar type from pasteurized milk.
J. L. Sammis and A. T. Bruhn. 95 p. (U.S.Dept.Agr.Bur.Anim.Indus.
Bul.165.)
- A comparison of the acid test and the rennet test for determining the
condition of milk for the cheddar type of cheese. E. G. Hastings
and A. C. Evans. 6 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.210.)
1914. Bacteria concerned in the production of the characteristic flavor in
cheese of the cheddar type. A. C. Evans, E. G. Hastings and E. B.
Hart. (U.S.Dept.Agr.Jour.Agr.Res.v.II,no.3,p.167-192.)
- Relation of the action of certain bacteria to the ripening of cheese
of the cheddar type. E. B. Hart, E. G. Hastings, E. M. Flint and
A. C. Evans. (U.S.Dept.Agr.Jour.Agr.Res.v.II,no.3,p.193-216.)
1915. Markets and prices of Wisconsin cheese. B. H. Hibbard and Asher
Hobson. 56 p. (Wis.Agr.Expt.Sta.Bul.251.)
1916. Making butter and cheese on the farm. Christian Larsen and V. R.
Jones. p.345-375. (S.Dak.Agr.Expt.Sta.Bul.164.)
1917. The food value of American cheese. Dairy Division. 2 p. (U.S.Dept.
Agr.Bur.Anim.Indus.[Pub.] A.I.21.)
1918. The use of pepsin as a rennet substitute in cheddar cheesemaking.
P. S. Lucas. 15 p. (Oreg.Agr.Expt.Sta.Bul.155.)
- Cheesemaking brings prosperity to farmers of southern mountains. C. F.
Doane and A. J. Reed. p.147-152. (U.S.Dept.Agr.Yearbook,1917, Sep.
737.)

SUBJECT LIST.

DAIRY PRODUCTS. Cheese.
Cheddar. (Cont.)

1918. A study of the streptococci concerned in cheese ripening. A. C. Evans. (U.S.Dept.Agr.Jour.Agr.Res.v.XIII,no.4,p.235-252.)

Sammis, J. L. Cheese making; a book for practical cheesemakers, factory patrons, agricultural colleges and dairy schools. 6th ed. of Decker's Cheesemaking, entirely rewritten. Madison, Wis., Mendota book co. 225 p.

Thom, Charles. The book of cheese, by Charles Thom and W. W. Fisk. New York, The Macmillan co. 392 p.

1920. Cheesemakers save by figuring costs. J. L. Sammis and O. A. Juve. 20 p. (Wis.Agr.Expt.Sta.Bul.321.)

1921. The relation of the number of bacteria in milk to the quality and yield of cheese. G. J. Hucker. 19 p. (N.Y., State, Agr.Expt.Sta. Bul.486.)

Microscopic study of bacteria in cheese. G. J. Hucker. (U.S.Dept. Agr.Jour.Agr.Res.v.XXII,no.2,p.93-100.)

1922. Review of the bacteriological aspects of cheese ripening. G. J. Hucker. 36 p. (N.Y., State, Agr.Expt.Sta.Tech.Bul.89.)

The types of bacteria found in commercial cheddar cheese. G. J. Hucker. 38 p. (N.Y., State, Agr.Expt.Sta.Tech.Bul.90.)

Making American cheese on the farm. C. M. Gere. 19 p. (U.S.Dept. Agr.Farmers' Bul.1191,rev.) 1st ed., 1921.

1923. The clarification of milk for cheese making. W. W. Fisk and W. V. Price. 14 p. (N.Y., Cornell, Agr.Expt.Sta.Bul.413.)

Handbook for use in the inspection of whole-milk American cheese under the Food products inspection law. C. W. Fryhofer and R. C. Potts. 16 p. (U.S.Dept.Agr.Off.Sec.Circ.157.)

Roquefort.

1906. Fungi in cheese ripening: Camembert and Roquefort. Charles Thom. 39 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.82.)

1914. Studies relating to the Roquefort and Camembert type of cheese. Charles Thom, J. N. Currie and K. J. Matheson. p.335-394. (Conn., Storrs, Agr.Expt.Sta.Bul.79.)

SUBJECT LIST.

DAIRY PRODUCTS. Cheese.

Roquefort. (Cont.)

1914. Flavor of Roquefort cheese. J. N. Currie. (U.S.Dept.Agr.Jour.Agr.Res. v.II,no.1,p.1-14.)
- Composition of Roquefort-cheese fat. J. N. Currie. (U.S.Dept.Agr. Jour.Res.v.II,no.6,p.429-434.)
1918. Bacterial flora of Roquefort cheese. A. C. Evans. (U.S.Dept.Agr. Jour.Agr.Res.v.XIII,no.4,p.225-233.)
1921. Manufacture of cows'-milk Roquefort cheese. K. J. Matheson. 23 p. (U.S.Dept.Agr.Bul.970.)

Soft.

1900. Notes on some dairy troubles: Introductory.- flavor in milk and its products; I, fishy flavor in milk; II, bitter flavor in Neufchatel cheese; III, sweet flavor in cheddar cheese; IV, rusty spot in cheddar cheese. H. A. Harding, L. A. Rogers and G. A. Smith. p.173-193. (N.Y., State, Agr.Expt.Sta.Bul.183.)
- Popular ed. Dairy disagreeables busy the bacteriologists. F. H. Hall, H. A. Harding, L. A. Rogers, and G. A. Smith. 9 p.
1904. Chemical changes in the souring of milk and their relations to cottage cheese. L. L. Van Slyke and E. B. Hart. 36 p. (N.Y., State, Agr. Expt.Sta.Bul.245.)
- Popular ed. The chemistry of cottage cheese. F. H. Hall, L. L. Van Slyke and E. B. Hart. 10 p.
1905. The digestibility and nutritive value of cottage cheese, rice, peas, and bacon. Harry Snyder. p.259-275. (Minn.Agr.Expt.Sta.Bul.92.)
1909. Manufacture and marketing of cottage cheese, skim-milk, buttermilk, and ice-cream. John Michels. 11 p. (N.C.Agr.Expt.Sta.Bul.202.) For partial rev.see Bul.210.
1910. Improved methods for making cottage and Neufchatel cheese. John Michels. p.29-38. (N.C.Agr.Expt.Sta.Bul.210.) Partial rev. of Bul. 202.
- New and improved tests of dairy products. S. M. Babcock and E. H. Farrington.-- The preparation of buttermilk curd. J. L. Sammis. 21 p. (Wis.Agr.Expt.Sta.Bul.195.)
1911. Buttermilk cheesemaking at the creamery. J. L. Sammis. 17 p. (Wis. Agr.Expt.Sta.Bul.211.) For rev.see Bul.239.

SUBJECT LIST.

DAIRY PRODUCTS. Cheese.
Soft. (Cont.)

1914. Cheeses of the Neufchatel group. K. J. Matheson, Charles Thom and J. N. Currie. p.313-329. (Conn., Storrs, Agr. Expt. Sta. Bul. 78.)

Three creamery methods for making buttermilk cheese. J. L. Sammis. 24 p. (Wis. Agr. Expt. Sta. Bul. 239.) Includes a rev. of Bul. 211.

1915. Methods of making some of the soft cheeses. W. W. Fisk. p.41-62. (N.Y., Cornell, Agr. Expt. Sta. Circ. 30.)

1916. Soft cheese making. R. W. Brown and Martin Mortensen. 4 p. (Iowa Agr. Expt. Sta. Circ. 38.)

Making butter and cheese on the farm. Christian Larsen and V. R. Jones. p.345-375. (S. Dak. Agr. Expt. Sta. Bul. 164.)

1917. Making soft cheeses on the farm. W. S. Cunningham. 7 p. (Ariz. Agr. Expt. Sta. Timely Hints for Farmer's 123.)

The manufacture of cottage cheese in creameries and milk plants. A. O. Dahlberg. 16 p. (U.S. Dept. Agr. Bul. 576.)

Simple directions for making cottage cheese on the farm. Dairy Division. 3 p. (U.S. Dept. Agr. Bur. Anim. Indus. [Pub.] A. I. 17.)

Ways to use cottage cheese. Dairy Division. 2 p. (U.S. Dept. Agr. Bur. Anim. Indus. [Pub.] A. I. 18.)

The manufacture of cottage cheese in creameries and milk plants. Dairy Division. 4 p. (U.S. Dept. Agr. Bur. Anim. Indus. [Pub.] A. I. 19.)

Cottage cheese - an inexpensive meat substitute. Dairy Division. 1 p. (U.S. Dept. Agr. Bur. Anim. Indus. [Pub.] A. I. 24.)

1918. A neglected source of valuable human food: Cottage cheese can partly replace meats in human diets. A. E. Perkins. (Ohio Agr. Expt. Sta. Monthly Bul. v. III, no. 4, p. 123-134.)

Centrifugal recovery of cheese from buttermilk. A. E. Perkins. (Ohio Agr. Expt. Sta. Monthly Bul. v. III, no. 12, p. 367-370.)

The manufacture of Neufchatel and cream cheese in the factory. K. J. Matheson and F. R. Cammack. 28 p. (U.S. Dept. Agr. Bul. 669.)

1919. Neufchatel cheese. H. S. Baird. 4 p. (Calif. Agr. Expt. Sta. Circ. 207.)

SUBJECT LIST.

DAIRY PRODUCTS. Cheese.
Soft. (Cont.)

1919. Recovering cottage cheese curd from buttermilk: Tests with centrifugal machines as compared with older methods. A. E. Perkins. (Ohio Agr.Expt.Sta.Monthly Bul.v.IV,no.9,p.276-283.)
- Cold storage of cottage and other soft curd cheeses. H. B. Ellenberger. 22 p. (Vt.Agr.Expt.Sta.Bul.213.)
- Suggestions for the marketing of cottage cheese. D. L. James. 14 p. (U.S.Dept.Agr.Dept.Circ.1.)
- Cottage cheese dishes. Economical, wholesome, delicious. 20 p. (U.S.Dept.Agr.Off.Sec.Circ:109,rev.) 1st ed., 1918.
- The rediscovery of an old dish [cottage cheese]. H. P. Davis. p.269-276. (U.S.Dept.Agr.Yearbook,1918,Sep.787.)
1920. Cottage cheese and buttermilk cheese: Their manufacture and sale. J. L. Sammis. 16 p. (Wis.Agr.Expt.Sta.Bul.315.)
- How to make cottage cheese on the farm: K. J. Matheson and F. R. Cammack. 16 p. (U.S.Dept.Agr.Farmers' Bul.350,rev.) 1st ed., 1917.
1922. Neufchatel and cream cheese: Farm manufacture and use: K. J. Matheson and F. R. Cammack. 35 p. (U.S.Dept.Agr.Farmers' Bul.960,rev.) 1st ed., 1918.

Swiss.

1905. A Swiss cheese trouble caused by a gas-forming yeast. H. L. Russell and E. G. Hastings. 26 p. (Wis.Agr.Expt.Sta.Bul.128.)
1912. A study of the gases of Emmental cheese. W. M. Clark. 32 p. (U.S. Dept.Agr.Bur.Anim.Indus.Bul.151.)
1915. The use of Bacillus bulgaricus in starters for making Swiss or Emmental cheese. C. F. Doane and E. E. Eldredge. 16 p. (U.S.Dept.Agr.Bul. 143.)

DAIRY PRODUCTS. Ice Cream.

1909. Manufacture and marketing of cottage cheese, skim-milk, buttermilk and ice-cream. John Michels. 11 p. (N.C.Agr.Expt.Sta.Bul.202.) For partial rev. see Bul.210.
1910. Principles and practice of ice cream making. R. M. Washburn. 92 p. (Vt.Agr.Expt.Sta.Bul.155.)

SUBJECT LIST.

DAIRY PRODUCTS.

Ice Cream. (Cont.)

1911. Classification of ice cream and related frozen products. Score card for ice cream judging. Martin Mortensen. p.353-365. (Iowa Agr.Expt.Sta.Bul.123.)
1912. Bacteria and ice cream. B. W. Hammer. p.279-302. (Iowa Agr.Expt. Sta.Bul.134.)
1913. Larsen, Christian. Dairy technology; a treatise on the city milk supply, milk as a food, ice cream making, by-products of the creamery and cheesery, fermented milks, condensed and evaporated milks, milk powder, renovated butter, and oleomargarine, by C. Larsen and Wm. White. New York, John Wiley & sons, inc. 298 p.
1914. Some improved dairy tests and methods: I. One way to determine the overrun in the making of ice cream. G. H. Benkendorf.-- II. A burette for calibrating Babcock test bottles. G. H. Benkendorf.-- III. A wire cheese curd knife. G. H. Benkendorf and A. T. Bruhn. -- IV. An attachment for the milk sediment tester. A. C. Baer.-- V. Cheese making tests with homogenized milk. J. L. Sammis. 19 p. (Wis.Agr.Expt.Sta.Bul.241.)
1915. Bacteriological studies: Bacterial studies of Camembert cheese; tests and comparisons of commercial lactic starters; tests of various brands of litmus for bacteriological work; the bacterial content of ice cream. W. M. Esten and C. J. Mason. p.105-135. (Conn., Storrs, Agr.Expt.Sta.Bul.85.)
- Smoothness and keeping qualities in ice cream, as affected by solids. W. K. Brainerd. p.154-159. (Va.Agr.Expt.Sta.Tech.Bul.7.)
- A bacteriological study of retail ice cream. S. H. Ayers and W. T. Johnson, jr. 24 p. (U.S.Dept.Agr.Bul.303.)
1916. Effects of binders upon the melting and hardness of ice cream. C. W. Holdaway and R. R. Reynolds. 19 p. (Va.Agr.Expt.Sta.Bul.211)
- Ice cream making. A. C. Baer. 36 p. (Wis.Agr.Expt.Sta.Bul.262.)
- Frandsen, J. H. The manufacture of ice cream and ices, by J. H. Frandsen and E. A. Markham. New York, Orange Judd publishing co. 315 p.
1917. Bacteria in ice cream--II. B. W. Hammer and E. F. Goss. 21 p. (Iowa Agr.Expt.Sta.Bul.174.)
- The determination of bacteria in ice cream. S. H. Ayers and W. T. Johnson, jr. 16 p. (U.S.Dept.Agr.Bul.563.)

SUBJECT LIST.

DAIRY PRODUCTS.

Ice Cream. (Cont.)

1917. Stocking, W. A. Manual of milk products. New York, The Macmillan co. 578 p.
1918. Conserving sugar in ice cream manufacture. H. A. Ruehe. 2 p. (Ill. Agr.Expt.Sta.Circ.219.)
- Factors which influence the yield and consistency of ice cream. Martin Mortensen. p.259-283. (Iowa Agr.Expt.Sta.Bul.180.)
- Sugar-saving substitutes in ice cream. J. H. Frandsen, J. W. Revner and John Luithly. 8 p. (Nebr.Agr.Expt.Sta.Bul.163.)
- Heller, B., & co. Heller's guide for ice-cream makers. 6th ed. Chicago, B. Heller & co. 154 p.
1919. A bacteriological study of the method of pasteurizing and homogenizing the ice cream mix. B. W. Hammer and L. R. Sanders. p.19-25. (Iowa Agr.Expt.Sta.Bul.186.)
- A study of bacteria in ice cream during storage. H. B. Ellenberger. p.331-362. (N.Y., Cornell, Agr.Expt.Sta.Mem.13.)
1921. Sandy crystals in ice cream: Their separation and identification. H. F. Zoller and O. E. Williams. (U.S.Dept.Agr.Jour.Agr.Res.v.XX, no.10,p.791-796.)
- Mortensen, Martin. Management of dairy plants. New York, The Macmillan co. 358 p.
1922. Proportioning the ingredients for ice cream and other frozen products by the balance method. O. E. Williams. 13 p. (U.S.Dept.Agr.Bul. 1123.)
- Mojonnier, Timothy. The technical control of dairy products; a treatise on the testing, analyzing, standardizing and the manufacture of dairy products. By Timothy Mojonnier and H. C. Troy. 1st ed. Chicago, Ill., Mojonnier Bros. co., Milk Engineers. 909 p.
1923. Effect of composition on the palatability of ice cream. O. E. Williams and G. R. Campbell. 3 p. (U.S.Dept.Agr.Bul.1161.)
- Fisk, W. W. The book of ice-cream. New York, The Macmillan co. 302 p.
- Ice Cream Field. Atlanta, Ga. Monthly. \$2.00.
- Ice Cream Review. Milwaukee, Wis. Monthly. \$2.00; Canada and Foreign, \$2.50.

SUBJECT LIST.

DAIRY PRODUCTS.

Ice Cream. (Cont.)

1923. Ice Cream Trade Journal. New York, N. Y. Monthly. \$2.00; Canada, \$2.25; Foreign, \$2.50.

DAIRY ANIMALS.

Nutrition.

1900. The influence of feed and care on the individuality of cows. C. F. Doane. p.31-60. (Md.Agr.Expt.Sta.Bul.69.)

1901. Investigation in milk production: [Protein requirements.] T. L. Haecker and E. W. Major. p.267-300. (Minn.Agr.Expt.Sta.Bul.71.)

The food source of milk fat with studies on the nutrition of milch cows. W. H. Jordan, C. G. Jentner and F. D. Fuller. 32 p. (N.Y., State, Agr.Expt.Sta.Bul.197.)

Popular ed. Fat in milk from starch in food. F. H. Hall [and others]. 8 p.

1903. Investigations in milk production: 1, The food of maintenance; 2, nutrient requirements; 3, protein requirements; 4, influence of stage of lactation on nutrient requirements. T. L. Haecker. p.89-148. (Minn.Agr.Expt.Sta.Bul.79.)

The available energy of timothy hay. Investigations with the respiration calorimeter in cooperation with the Pennsylvania state college agricultural experiment station. H. P. Armsby and J. A. Fries. 77 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.51.)

1905. Discussion of the amount of protein required in the ration for dairy cows. C. L. Beach. (Conn., Storrs, Agr.Expt.Sta.Bul.34.) 22 p.

Distillers' dried grains vs. cotton seed meal as a source of protein. H. P. Armsby and A. K. Risser. 11 p. (Pa.Agr.Expt.Sta.Bul.73.)

Energy values of red clover hay and maize meal. Investigations with the respiration calorimeter, in cooperation with the Pennsylvania state college agricultural experiment station. H. P. Armsby and J. A. Fries. 64 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.74.)

Feeding fat into milk; ~~or~~ The effect of the food upon the quality and quantity of milk produced. Recent experimental inquiry upon milk secretion. C. D. Woods.-- The physiology of milk secretion. A. W. Bitting. 43 p. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.75.)

1906. The facility of digestion of foods a factor in feeding. C. L. Beach. 23 p. (Conn., Storrs, Agr.Expt.Sta.Bul.43.)

SUBJECT LIST.

DAIRY ANIMALS.

Nutrition. (Cont.)

1907. Investigation in milk production: The relation of nutriment to product. T. L. Haecker. p.147-169. (Minn.Agr.Expt.Sta.Bul.106.)
- Feed as a source of energy. H. P. Armsby. 16 p. (Pa.Agr.Expt.Sta. Bul.84.)
- Protein requirements for dairy cows. A. M. Soule, J. R. Fain, and M. P. Jarnagin. p.293-313. (Va.Agr.Expt.Sta.Bul.169.)
- Investigations in the use of the bomb calorimeter in cooperation with the Pennsylvania state college agricultural experiment station. J. A. Fries. 39 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.94.)
1908. The available energy of red clover hay. Investigations with the respiration calorimeter. H. P. Armsby and J. A. Fries. 61 p. (U.S. Dept.Agr.Bur.Anim.Indus.Bul.101.)
- Armsby, H. P. The principles of animal nutrition. 3d ed., rev. New York, John Wiley & sons, inc. 614 p.
1909. The balance between inorganic acids and bases in animal nutrition. E. B. Forbes. p.23-52. (Ohio Agr.Expt.Sta.Bul.207.)
- The computation of rations for farm animals by the use of energy values. H. P. Armsby. 32 p. (U.S.Dept.Agr.Farmers' Bul.346.)
1910. The respiration calorimeter at the Institute of animal nutrition of the Pennsylvania state college. H. P. Armsby. 16 p. (Pa.Agr.Expt. Sta.Bul.104.) A reprint with additions of Expt.Sta.Record,15 (1903-4),p.1037-1050.
- Influence of type and of age upon the utilization of feed by cattle. H. P. Armsby and J. A. Fries. 22 p. (Pa.Agr.Expt.Sta.Bul.105.) A more detailed account pub.as U.S.Dept.Agr.Bur.Anim.Indus.Bul.128.
- Studies of the protein requirements of dairy cows. F. W. Woll and G. C. Humphrey. p.175-216. (Wis.Agr.Expt.Sta.Res.Bul.13.) For popular discussion see Bul.200.
- Methods and standards in bomb calorimetry. Investigations in cooperation with the Institute of animal nutrition of the Pennsylvania state college. J. A. Fries. 32 p. (U.S.Dept.Agr.Bur.Anim.Indus. Bul.124.)
1911. Digestion trial with two Jersey cows on full ration and on maintenance. C. H. Eckles. 22 p. (Mo.Agr.Expt.Sta.Res.Bul.4.)

SUBJECT LIST.

DAIRY ANIMALS.

Nutrition. (Cont.)

1911. Maintenance trials with five Jersey cows. C. H. Eckles. p.25-48.
(Mo.Agr.Expt.Sta.Res.Bul.5.)

The maintenance ration of cattle. H. P. Armsby. 20 p. (Pa.Agr.
Expt.Sta.Bul.111.)

Physiological effect on growth and reproduction of rations balanced
from restricted sources. E. B. Hart, E. V. McCollum, Harry Steen-
bock and G. C. Humphrey. p.131-205. (Wis.Agr.Expt.Sta.Res.Bul.
17.)

The influence of type and of age upon the utilization of feed by
cattle. Investigations in cooperation with the Institute of ani-
mal nutrition of the Pennsylvania state college. H. P. Armsby and
J. A. Fries. 245 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.128.)

The nutritive value of the nonprotein of feeding stuffs. H. P.
Armsby. 49 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.139.)

1912. The maintenance rations of farm animals. H. P. Armsby. 110 p.
(U.S.Dept.Agr.Bur.Anim.Indus.Bul.143.)

1913. Nutrients required for milk production. C. H. Eckles. p.91-140.
(Mo.Agr.Expt.Sta.Res.Bul.7.)

Effect of alkali water on dairy cows. Christian Larsen and D. E.
Bailey. p.300-325. (S.Dak.Agr.Expt.Sta.Bul.147.) See also Bul.
132.

1914. The digestibility of cattle foods. J. B. Lindsey and P. H. Smith.
p.79-120. (Mass.Agr.Expt.Sta.Bul.152.)

1915. Net energy values of feeding stuffs for cattle. H. P. Armsby and
J. A. Fries. (U.S.Dept.Agr.Jour.Agr.Res.v.III,no.6,p.435-491.)

1916. Influence of plane of nutrition of the cow upon the composition and
properties of milk and butter fat: Influence of overfeeding.
C. H. Eckles and L. S. Palmer. 35 p. (Mo.Agr.Expt.Sta.Res.Bul.
24.)

Influence of plane of nutrition of the cow upon the composition and
properties of milk and butter fat: Influence of underfeeding.
C. H. Eckles and L. S. Palmer. 107 p. (Mo.Agr.Expt.Sta.Bul.25.)

Net energy values for ruminants. H. P. Armsby and J. A. Fries. --
Net energy values of American feeding stuffs. H. P. Armsby and
F. S. Putney. 20 p. (Pa.Agr.Expt.Sta.Bul.142.) Bul.143 is based
on Buls.114, 142.

SUBJECT LIST.

DAIRY ANIMALS.

Nutrition. (Cont.)

1916. Effect of water in the ration on the composition of milk. W. F. Turner [and others]. (U.S.Dept.Agr.Jour.Agr.Res.v.VI,no.4,p.167-178.)
- Energy values of red-clover hay and maize meal. H. P. Armsby, J. A. Fries and W. W. Braman. (U.S.Dept.Agr.Jour.Agr.Res.v.VII,no.9,p.379-387.)
1917. Test of three protein concentrates and two leguminous roughages in milk production. O. F. Hunziker and R. E. Caldwell. 20 p. (Ind.Agr.Expt. Sta.Bul.203.)
- The role of water in a dairy cow's ration. Christian Larsen, E. H. Hungerford and D. E. Bailey. p:649-680. (S.Dak.Agr.Expt.Sta.Bul. 175.)
- The effects of high protein and high energy rations in feeding dairy cows. W. B. Ellett and C. W. Holdaway. p.29-45. (Va.Agr.Expt.Sta. Tech.Bul.12.)
- Physiological effect on growth and reproduction of rations balanced from restricted sources. E. B. Hart [and others]. (U.S.Dept.Agr. Jour.Agr.Res.v.X,no.4,p.175-198.)
- Energy values of hominy feed and maize meal for cattle. H. P. Armsby and J. A. Fries. (U.S.Dept.Agr.Jour.Agr.Res.v.X,no.12,p.599-613.)
- Influence of the degree of fatness of cattle upon their utilization of feed. H. P. Armsby and J. A. Fries. (U.S.Dept.Agr.Jour.Agr.Res. v.XI,no.10,p.451-472.)
- Armsby, H. P. The nutrition of farm animals. New York, The Macmillan co. 743 p.
1918. Basal katabolism of cattle and other species. H. P. Armsby, J. A. Fries and W. W. Braman. (U.S.Dept.Agr.Jour.Agr.Res.v.XIII,no.1, p.43-57.)
- Net energy values of alfalfa hay and of starch. H. P. Armsby and J. A. Fries. (U.S.Dept.Agr.Jour.Agr.Res.v.XV,no.5,p.269-286.)
1920. Influence of condition on the maintenance requirements of dairy cattle. A. C. McCandlish and W. G. Gaessler. p.403-420. (Iowa Agr.Expt. Sta.Res.Bul.60.)
- Relative values of feed proteins for dairy cows. Christian Larsen [and others]. p.162-204. (S.Dak.Agr.Expt.Sta.Bul.188.)

SUBJECT LIST

DAIRY ANIMALS.

Nutrition. (Cont.)

1920. The effects of high protein and high energy rations in feeding dairy cows. W. B. Ellett and C. W. Holdaway. 16 p. (Va. Agr. Expt. Sta. Tech. Bul. 20.)

1922. The protein requirements of dairy cows. J. L. Hills [and others]. 199 p. (Vt. Agr. Expt. Sta. Bul. 225.) Bul. 229 is a popular ed. of Buls. 225, 226.

The maintenance requirements of dairy cattle. J. L. Hills. 191 p. (Vt. Agr. Expt. Sta. Bul. 226.) Bul. 229 is a popular ed. of Buls. 225, 226.

The protein and maintenance requirements of dairy cattle. J. L. Hills. 10 p. (Vt. Agr. Expt. Sta. Bul. 229.) Popular ed. of Buls. 225, 226.

Armsby, H. P. Animal nutrition. Investigations at the Institute of animal nutrition of the Pennsylvania state college with the cooperation of the Bureau of animal industry of the United States Department of Agriculture. Collected papers, 1912-1923. H. P. Armsby, J. A. Fries [and others]. State college, Institute of animal nutrition, Pennsylvania state college. 751 p. Bulletins and reprints bound together with new title page.

DAIRY ANIMALS. Nutrition.

Feeding and Feeding Stuffs.

1900. Investigation in milk production; feeding dairy cows. T. L. Haecker. p. 333-556. (Minn. Agr. Expt. Sta. Bul. 67.)

Experiments with dairy cows: I, A study of their records; II, winter feeding experiments; III, summer feeding experiments. F. B. Linfield. p. 167-309. (Utah Agr. Expt. Sta. Bul. 68.)

1901. Feeding experiments with dairy cows. J. F. Duggar and R. W. Clark. p. 56-80. (Ala. Agr. Expt. Sta. Bul. 114.)

Records of station cows; feeding dairy cows. J. S. Moore. 19 p. (Miss. Agr. Expt. Sta. Bul. 70.)

The immediate effect on milk production of changes in the ration. W. P. Wheeler. p. 375-433. (N.Y. State Agr. Expt. Sta. Bul. 210.)

Popular ed. How changes in feed affect the yield of milk. F. H. Hall and W. P. Wheeler. 8 p.

Methods of dairy feeding. Harry Hayward. 6 p. (Pa. Agr. Expt. Sta. Bul. 56.)

SUBJECT LIST.

DAIRY ANIMALS. Nutrition.

Feeding and Feeding Stuffs. (Cont.)

1901. Rations for the milch cows. H. J. Wheeler and J. A. Tillinghast.
(R.I.Agr.Expt.Sta.Bul.77,p.131-172.)
1902. Some feeding experiments with cows and tables for the computation of
rations for farm animals. H. J. Patterson. p.121-193. (Md.Agr.
Expt.Sta.Bul.84.)
- Feeding the dairy cow. C. H. Eckles. p.53-72. (Mo.Agr.Expt.Sta.
Bul.58.)
- Stock feeding. C. M. Conner. 13 p. (S.C.Agr.Expt.Sta.Bul.67.)
1903. Feeding dairy cows. D. W. May. p.47-79. (Ky.Agr.Expt.Sta.Bul.106.)
- Experiments with dairy herd: I, The herd record; II, ration tests
for dairy cows; III, the best week in a cow's lactation period.
A. L. Haecker. 21 p. (Nebr.Agr.Expt.Sta.Bul.76.)
- Feeding dairy cows. J. W. Wilson and H. G. Skinner. p.27-40. (S.Dak,
Agr.Expt.Sta.Bul.81.)
- Soiling crops for dairy cows in Wisconsin. W. L. Carlyle, J. R. Danks,
and G. E. Morton. 14 p. (Wis.Agr.Expt.Sta.Bul.103.)
1904. Feeding dairy cows. W. J. Fraser. 18 p. (Ill.Agr.Expt.Sta.Circ.75.)
- Feeding experiments with cows. C. D. Woods. p.122-126. (Me.Agr..
Expt.Sta.Bul.106.)
- Record of an attempt to increase the fat in milk by means of liberal
feeding. H. H. Wing and J. A. Foord. p.19-39. (N.Y., Cornell, Agr.
Expt.Sta.Bul.222.)
- On the relation of food to the production of milk and butter fat by
dairy cows. F. W. Woll. 85 p. (Wis.Agr.Expt.Sta.Bul.116.) Bul.
117 is a popular ed. of Bul.116.
- The relation of food to dairy production. F. W. Woll. 16 p. (Wis.
Agr.Expt.Sta.Bul.117.) A popular ed. of Bul.116.
1905. Dairy methods in Great Britain, Ireland, Denmark, Holland, Channel
Islands, France, Austria-Hungary, Germany, and Switzerland. W. J.
Kennedy. p.40-70. (U.S.Dept.Agr.Bur.Anim.Indus.Circ.76.)
- Cattle, sheep and hog feeding in Europe. W. J. Kennedy. 98 p. (U.S.
Dept.Agr.Bur.Anim.Indus.Bul.77.)

SUBJECT LIST.

DAIRY ANIMALS. Nutrition.

Feeding and Feeding Stuffs. (Cont.)

1906. Feeding dairy cows. C. D. Smith. p.85-109. (Mich.Agr.Expt.Sta. Bul.234.) Review and partial reprint of Bul.149.
- The feeding of farm stock. F. W. Taylor. p.187-208. (N.H.Agr. Expt.Sta.Bul.127.) Supersedes Buls.4,17.
- Feeding experiments with milch cows. J. H. Stewart and Horace Atwood. p.337-345. (W.Va.Agr.Expt.Sta.Bul.106.)
1908. Milk production: II, Feeding. H. A. Hopper. 21 p. (Ind.Agr.Expt. Sta.Circ.13.)
- Experiments in feeding dairy cows. J. S. Moore. 6 p. (Miss.Agr. Expt.Sta.Bul.111.)
- Feeding the dairy cow. C. H. Eckles. 17 p. (Mo.Agr.Expt.Sta. Circ.26.)
- Feeding experiments with cows and calves. John Michels. 16 p. (N.C.Agr.Expt.Sta.Bul.199.)
1909. Shaw, Thomas. Management and feeding of cattle. New York, Orange Judd publishing co. 461 p.
1910. A study of cause of wide variations in milk production by dairy cows. C. H. Eckles and O. E. Reed. p.107-147. (Mo.Agr.Expt. Sta.Res.Bul.2.)
- Feeding for milk production. C. H. Eckles. p.69-83. (Mo.Agr.Expt. Sta.Circ.44.)
- Feeding experiments with cows and calves. John Michels. p.89-97. (N.C.Agr.Expt.Sta.Bul.213.)
1911. Feeding dairy cows. C. C. Hayden. 31 p. (Ill.Agr.Expt.Sta.Circ. 152.)
- Agricultural extension, X; (Milk production, IV): Computing rations for dairy cows. O. F. Hunziker and O. E. Reed. 21 p. (Ind.Agr. Expt.Sta.Circ.26.)
- Balanced rations for dairy stock. J. B. Lindsey. 7 p. (Mass.Agr. Expt.Sta.Circ.30.)
- The selection of feeds for dairy cows. F. W. Woll and G. C. Humphrey. 17 p. (Wis.Agr.Expt.Sta.Bul.200.) A popular ed. of Res.Bul.13.

SUBJECT LIST.

DAIRY ANIMALS. Nutrition.

Feeding and Feeding Stuffs. (Cont.)

1911. Eckles, C. H. Dairy cattle and milk production. New York, The Macmillan co. 342 p.
1912. Feeding and managing dairy cattle; feed and care of the calf; the bull; silos and silage. L. W. Summers and L. W. Shook. p.100-128. (Ala. Agr.Expt.Sta.Circ.13.)
- Balanced versus unbalanced rations for dairy cows. W. J. Fraser and C. C. Hayden. p.237-246. (Ill.Agr.Expt.Sta.Bul.159.)
- Dairy feeding and the home mixing of feeds. A. S. Cook. 14 p. (N.J. Agr.Expt.Sta.Circ.7.)
- A study of feeding standards for milk production. E. S. Savage. p.59-123. (N.Y., Cornell, Agr.Expt.Sta.Bul.323.)
- Feeding dairy cows. C. C. Hayden. p.183-211. (Ohio Agr.Expt.Sta. Circ.128.)
- A short method of computing dairy rations according to the net energy standards. H. E. Van Norman. 19 p. (Pa.Agr.Expt.Sta.Bul.114.) Bul.143 is based on Buls.114, 142.
- The feed unit system for determining the economy of production by dairy cows. F. W. Woll. 15 p. (Wis.Agr.Expt.Sta.Circ.of Inform. 37.)
1913. Pt.1, Feeding dairy cows in Kentucky. J. J. Hooper.-- Feeding standard for milk production. T. L. Haecker.--Pt.2, Experiments in feeding dairy cows and calves. J. J. Hooper. p.165-190. (Ky.Agr.Expt.Sta. Bul.171.)
- Feeding dairy cattle. V. E. Scott.-- The judging of dairy cattle. G. H. True.-- Improving the raw product. V. E. Scott. (Nev.Agr. Expt.Sta.Better Farming, v.I, no.5.)
- Dairying in Oklahoma: I, Some results obtained in feeding dairy cows. R. C. Potts.-- II, Principles of feeding, feeding dairy cattle and experiments in milk production. C. I. Bray.-- III, Care and management of dairy cattle. C. I. Bray. 55 p. (Okla.Agr.Expt.Sta.Bul. 99.)
- How to feed live stock successfully. C. A. Willson. p.49-106. (Tenn. Agr.Expt.Sta.Bul.116.)
1914. Feeding dairy cows. T. L. Haecker. 65 p. (Minn.Agr.Expt.Sta.Bul.130 rev.and enl.) 1st ed., 1913.

SUBJECT LIST.

DAIRY ANIMALS. Nutrition.

Feeding and Feeding Stuffs. (Cont.)

1914. Investigations in milk-production. T. L. Haecker. 79 p. (Minn.Agr. Expt.Sta.Bul.140.)
- The digestibility of cattle foods. J. B. Lindsey and P. H. Smith. p.79-120. (Mass.Agr.Expt.Sta.Bul.152.)
- Feeding the farm cow in the South. Dairy Division. 4 p. (U.S. Dept.Agr.Bur.Anim.Indus.[Pub.].)
1915. Care, feed and management of the dairy herd. H. H. Kildee. 40 p. (Iowa Agr.Expt.Sta.Circ.16, 2d ed.) 1st ed., 1914.
- Rations for dairy stock. J. B. Lindsey. 8 p. (Mass.Agr.Expt.Sta. Circ.50.) For rev. see Circ.63.
- Economic feeding for milk production in New Mexico. Luther Foster and R. W. Latta. 34 p. (N.Mex.Agr.Expt.Sta.Bul.98.)
- Feeding dairy cows in Washington. A. B. Nystrom. 23 p. (Wash.Agr. Expt.Sta.Pop.Bul.92.)
1916. Balanced rations for dairy stock. J. B. Lindsey. 8 p. (Mass.Agr. Expt.Sta.Circ.63.) Rev. of Circ.50.
- Computing rations for farm animals. E. S. Savage. 68 p. (N.Y., Cornell, Agr.Expt.Sta.Bul.321, rev.) 1st ed., 1912.
- Soil fertility considerations in the feeding of hogs and milch cows. E. B. Forbes. (Ohio Agr.Expt.Sta.Monthly Bul.v.I, no.11, p.351-352.)
- Computation of dairy rations. E. S. Putney and H. P. Armsby. 24 p. (Pa.Agr.Expt.Sta.Bul.143.) Based on Buls.114, 142. For rev. see Bul.161.
1917. Selecting rations for dairy cows. G. C. White and K. B. Musser. 38 p. (Conn., Storrs, Agr.Expt.Sta.Bul.90.)
- Feeding dairy cattle. A. C. McCandlish. 32 p. (Iowa Agr.Expt.Sta. Circ.34.)
- Dairy feeding and the calculation of rations. L. S. Riford. 15 p. (N.J.Agr.Expt.Sta.Circ.73.)
- The feeding situation: Suggestions for computing winter rations for dairy cows. C. C. Hayden. (Ohio Agr.Expt.Sta.Monthly Bul.v.II, no.1, p.19-22.)

SUBJECT LIST.

DAIRY ANIMALS. Nutrition.

Feeding and Feeding Stuffs. (Cont.)

1917. Feeding and management of dairy calves and young dairy stock. W. K. Brainerd and H. P. Davis. 20 p. (U.S.Dept.Agr.Farmers' Bul.777.)
- Utilization of farm wastes in feeding live stock. S. H. Ray. 12 p. (U.S.Dept.Agr.Farmers' Bul.873.)
- Physiological effect on growth and reproduction of rations balanced from restricted sources. E. B. Hart [and others]. (U.S.Dept.Agr. Jour.Agr.Res.v.X,no.4,p.175-198.)
- Feed more legumes- less grain- to dairy cows. Dairy Division. 1 p. (U.S.Dept.Agr.Bur.Anim.Indus.[Pub.] A.I.25.)
- Jordan, W. H. The feeding of animals. Rev.ed. New York, The Macmillan co. 473 p.
- Larson, C. W. Dairy cattle feeding and management, by C. W. Larson and F. S. Putney. New York, John Wiley & sons, inc. 471 p.
1918. Feeding for milk production. J. M. Scott. p.78-88. (Fla.Agr.Expt. Sta.Bul.143.)
- The refinement of feeding experiments for milk production by the application of statistical methods. L. A. Maynard and W. I. Myers. p.213-249. (N.Y., Cornell, Agr.Expt.Sta.Bul.397.)
- Feed consumed in milk production. H. A. Hopper, H. M. Bowen and F. S. Barlow. p.5-15. (N.Y., Cornell, Agr.Expt.Sta.Bul.398.)
- Manurial values of dairy feeds. R. I. Grady. (Ohio Agr.Expt.Sta. Monthly Bul.v.III,no.10,p.317-318.)
- New facts on feeding cattle for successful growth and reproduction. E. B. Hart, Harry Steenbock and G. C. Humphrey. 24 p. (Wis.Agr. Expt.Sta.Bul.287.)
- A method of calculating economical balanced rations. J. C. Rundles. 19 p. (U.S.Dept.Agr.Bul.637.)
1919. Feeding dairy cows in California. F. W. Woll. 6 p. (Calif.Agr.Expt. Sta.Circ.215.)
- Soiling crops for milk production. L. S. Gillette, A. C. McCandlish, and H. H. Kildee. p.33-59. (Iowa Agr.Expt.Sta.Bul.187.)
- Home-mixed or proprietary feeds for the dairy herd. A. E. Perkins. (Ohio Agr.Expt.Sta.Monthly Bul.v.IV,no.10,p.306-312.)

SUBJECT LIST.

DAIRY ANIMALS. Nutrition.

Feeding and Feeding Stuffs. (Cont.)

1919. Van Pelt, H. G. How to feed the dairy cow, breeding and feeding dairy cattle. Waterloo, Iowa, Fred L. Kimball co. 290 p.
1920. Heavy vs. light grain feeding for dairy cows. F. W. Woll, E. C. Voorhies and C. V. Castle. p.3-21. (Calif.Agr.Expt.Sta.Bul.323.)
- Feeding dairy cattle. A. C. McCandlish. 32 p. (Iowa Agr.Expt. Sta.Circ.64.)
- Computation of dairy rations. [Rev.by A. A. Borland from Bul.143 by F. S. Putney and H. P. Armsby]. 28 p. (Pa.Agr.Expt.Sta.Bul. 161.)
- Roberts, M. H., jr. The dairy record and feeding chart. New York, Longmans, Green & co. 215 p.
- Roberts, M. H., jr. Feeding and management of dairy cattle for official production. New York, Longmans, Green & co. 294 p.
1921. The heavy feeding of milk cows is now profitable. H. A. Ross. 2 p. (Ill.Agr.Expt.Sta.Circ.250.)
- Feeding dairy cattle. M. H. Keeney. 38 p. (N.J.Agr.Expt.Sta.Circ. 127.)
- Feeding dairy cattle. T. M. Olson. p.353-372. (S.Dak.Agr.Expt. Sta.Bul.195.)
- Feeding standards for milk production. W. B. Ellett, C. W. Holdaway and W. G. Harris. 52 p. (Va.Agr.Expt.Sta.Tech.Bul.23.)
- Savage, E. S. Feeding dairy cattle. 3d and rev.ed. Syracuse, N. Y., E. S. Savage. 142 p.
- Woll, F. W. Productive feeding of farm animals. 3d rev.ed. Philadelphia, J. B. Lippincott co. 385 p.
1922. Feeding dairy steers. C. Bohstedt. (Ohio Agr.Expt.Sta.Monthly Bul. v.VII,nos.11 & 12,p.193-196.)
- McCandlish, A. C. The feeding of dairy cattle. New York, John Wiley & sons, inc. 281 p.
- Savage, E. S. Feeds and feeding manual, by E. S. Savage and F. B. Morrison. Madison, Wis., The Henry-Morrison co. 165 p.
1923. The feeding of dairy cows. Helmer Rabild, H. P. Davis and W. K. Brainerd. 27 p. (U.S.Dept.Agr.Farmers' Bul.743,rev.) 1st ed., 1916.

SUBJECT LIST.

DAIRY ANIMALS. Nutrition.

Feeding and Feeding Stuffs. (Cont.)

1923. Henry, W. A. Feeds and feeding, earlier editions by W. A. Henry, re-written by F. B. Morrison. 13th ed. Madison, Wis., The Henry-Morrison co. 770 p.

Feeding and Feeding Stuffs. Specific Feeding Stuffs.

1900. Sugar-beet pulp as a food for cows. H. H. Wing and LeRoy Anderson. 16 p. (N.Y., Cornell, Agr. Expt. Sta. Bul. 183.)
1901. Some experiments with a beet pulp as a stock food. C. D. Smith [and others]. 27 p. (Mich. Agr. Expt. Sta. Bul. 193.)
- Alfalfa: Methods of culture and yields per acre: Alfalfa protein versus purchased protein in rations for dairy cows. E. B. Voorhees and C. B. Lane. 22 p. (N.J. Agr. Expt. Sta. Bul. 148.)
1902. The feeding value of beet pulp: Feeding beet pulp and sugar beets to cows. B. C. Buffum and C. J. Griffith. 24 p. (Colo. Agr. Expt. Sta. Bul. 73.)
- Alfalfa, cowpeas, and crimson clover as substitutes for purchased feeds; home-grown protein versus purchased protein. C. B. Lane. 23 p. (N.J. Agr. Expt. Sta. Bul. 161.)
- Feeding corn stover; dehorning milch cows. C. M. Conner. 9 p. (S.C. Agr. Expt. Sta. Bul. 66.)
- Apple pomace a good feed for cows. J. L. Hills. 7 p. (Vt. Agr. Expt. Sta. Bul. 96.)
1903. Vetch, cowpea, and soy bean hay as substitutes for wheat bran. J. F. Duggar. p. 51-72. (Ala. Agr. Expt. Sta. Bul. 123.)
- The available energy of timothy hay: Investigations with the respiration calorimeter in cooperation with the Pennsylvania state college agricultural experiment station. H. P. Armsby and J. A. Fries. 77 p. (U.S. Dept. Agr. Bur. Anim. Indus. Bul. 51.)
1904. Alfalfa hay, cowpea hay, and soy bean silage as substitutes for purchased feeds; cottonseed meal versus wheat bran and dried brewers' grains. C. B. Lane. 24 p. (N.J. Agr. Expt. Sta. Bul. 174.)
- Silage vs. grain for dairy cows. C. G. Williams. p. 65-85. (Ohio Agr. Expt. Sta. Bul. 155.)
- Replacing grain with alfalfa in a ration for dairy cows. A. M. Soule and S. E. Barnes. p. 71-92. (Tenn. Agr. Expt. Sta. Bul. [70], v. XVII, no. 4.)

SUBJECT LIST.

DAIRY ANIMALS. Nutrition. Feeding and Feeding Stuffs.
Specific Feeding Stuffs. (Cont.)

1905. Dried beet pulp as a substitute for corn silage; dried beet pulp versus dried molasses beet pulp; dried molasses beet pulp versus hominy meal. G. A. Billings. 24 p. (N.J.Agr.Expt.Sta.Bul.189.)
- Alfalfa hay versus purchased feeds. G. A. Billings. p.19-31. (N.J.Agr.Expt.Sta.Bul.190.)
- Distillers' dried grains vs. cotton-seed meal as a source of protein. H. P. Armsby and A. K. Risser. 11 p. (Pa.Agr.Expt.Sta.Bul.73.)
- A comparison of wheat bran and cotton-seed meal for milk production. John Michels and J. M. Burgess. 18 p. (S.C.Agr.Expt.Sta.Bul.117.)
- Gluten and cotton-seed meal with silage, hay and stover for dairy cows. A. M. Soule and J. R. Fain. 30 p. (Va.Agr.Expt.Sta.Bul.156.)
- Energy values of red clover hay and maize meal. Investigations with the respiration calorimeter, in cooperation with the Pennsylvania state college agricultural experiment station. H. P. Armsby and J. A. Fries. 64 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.74.)
1906. Roots supplementary to silage for dairy cows. R. S. Shaw and H. W. Norton, jr. p.19-31. (Mich.Agr.Expt.Sta.Bul.240.)
- A comparison of alfalfa meal and wheat bran for dairy cows. T. I. Mairs. 10 p. (Pa.Agr.Expt.Sta.Bul.30.)
- Feeding experiments with cattle, sheep, swine and horses. R. W. Clark. (Utah Agr.Expt.Sta.Bul.101.) [Feeding sugar beets and sugar-beet pulp to dairy cows. p.159-165.]
- Feeding prickly pear to stock in Texas. David Griffiths. 23 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.91.)
1907. Molasses and molasses feeds for farm stock. J. B. Lindsey, E. B. Holland and P. H. Smith. 31 p. (Mass.Agr.Expt.Sta.Bul.118.)
- Home-grown protein vs. purchased protein; distiller's grain vs. gluten feed; summer silage vs. soiling. G. A. Billings. 28 p. (N.J.Agr.Expt.Sta.Bul.204.)
- Cotton-seed meal and corn silage as a ration for dairy cows. John Michels and J. M. Burgess. 11 p. (S.C.Agr.Expt.Sta.Bul.131.)

SUBJECT LIST.

DAIRY ANIMALS. Nutrition. Feeding and Feeding Stuff.
Specific Feeding Stuff. (Cont.)

1907. Feeding grain to milch cows at pasture. J. H. Stewart and Horace Atwood. 15 p. (W.Va.Agr.Expt.Sta.Bul.109.)
1908. Feeding "blackstrap" molasses to young calves. T. E. Woodward and J. G. Lee, jr. 40 p. (La.Agr.Expt.Sta.Bul.104.)
- Silage vs. hulls and meal. A. K. Risser and R. R. Welch. 8 p. (Miss.Agr.Expt.Sta.Bul.112.)
- Digestibility of kale, vetch hay, steamed and unsteamed silage. James Withycombe and C. E. Bradley. p.3-29. (Oreg.Agr.Expt.Sta.Bul.102.)
- The available energy of red clover hay. Investigations with the respiration calorimeter. H. P. Armsby and J. A. Fries. 61 p. (U.S. Dept.Agr.Bur.Anim.Indus.Bul.101.)
- Experiments on the digestibility of prickly pear by cattle. R. F. Hare. 38 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.106.)
1909. Milk production. J. M. Scott. 10 p. (Fla.Agr.Expt.Sta.Bul.99.)
- Sorghum versus corn meal as a source of carbohydrates for dairy cattle P. N. Flint. p.19-27. (Ga.Agr.Expt.Sta.Bul.86.)
- The substitution of roots for concentrated foods in rations for milk production. E. S. Savage. p.443-437. (N.Y., Cornell, Agr.Expt. Sta.Bul.263.)
1911. Crops for the silo, cost of filling, and effect of silage on the flavor of milk. W. J. Fraser. p.629-646. (Ill.Agr.Expt.Sta.Bul. 101, 2d ed.) 1st ed., 1905.
- Dairy cows and alfalfa. F. L. Kent. (Oreg.Agr.Expt.Sta.Circ.18, p.36-37.)
1912. Feeding and managing dairy cattle; feed and care of the calf; the bull; silos and silage. L. W. Summers and L. W. Shook. p.100-128. (Ala.Agr.Expt.Sta.Circ.18.)
1913. Milk production, II. J. M. Scott. p.63-76. (Fla.Agr.Expt.Sta.Bul. 114.)
- Feeding corn silage to farm animals: Dairy cattle. H. H. Kildee. p.3-4. (Iowa Agr.Expt.Sta.Circ.6.)
- Sorghum crops for silage. Feeding experiments with dairy cattle. O. E. Reed and J. B. Fitch. 6 p. (Kans.Agr.Expt.Sta.Circ.23.)

SUBJECT LIST.

DAIRY ANIMALS. Nutrition. Feeding and Feeding Stuffs.
Specific Feeding Stuffs. (Cont.)

1913. Clover and corn silage as feeds for dairy cows. R. W. Clark. p.35-54. (Mont.Agr.Expt.Sta.Bul.94.)

The value of soybean and alfalfa hay in milk production. R. E. Caldwell. p.125-145. (Ohio Agr.Expt.Sta.Bul.267.)

A comparison of first, second and third crop alfalfa hay for milk production. W. E. Carroll. p.153-189. (Utah Agr.Expt.Sta.Bul.126.)

1914. The composition, digestibility and feeding value of molassine meal, cotton-seed meal and hulls, cocoa shells, grain screenings, flax shives, Mellen's food refuse, and Postum cereal residue (CXX feed). J. B. Lindsey and P. H. Smith. p.53-71. (Mass.Agr.Expt.Sta.Bul.158.)

The feeding value of apple pomace. J. B. Lindsey. 4 p. (Mass.Agr.Expt.Sta.Circ.47.) For rev.see Circ.58.

I, Feeding cottonseed meal and hulls to dairy cows; II, feeding value of cottonseed meal vs. cold pressed cottonseed cake; III, feeding value of purchased feeds vs. pasture vs. soiling crops. J. S. Moore. 16 p. (Miss.Agr.Expt.Sta.Bul.174.)

Silage feeding. C. I. Bray. 8 p. (Okla.Agr.Expt.Sta.Circ.36.)

Soiling crops vs. silage for dairy cows in summer. F. W. Woll, G. C. Humphrey and A. C. Oosterhuis. 16 p. (Wis.Agr.Expt.Sta.Bul.235.)

Comparative efficiency for growth of the nitrogen of alfalfa hay and corn grain. E. B. Hart, G. C. Humphrey and F. B. Morrison.-- The comparative efficiency for milk-production of the nitrogen of alfalfa hay and corn grain. E. B. Hart, G. C. Humphrey, J. J. Willaman and A. R. Lamb. p.87-119. (Wis.Agr.Expt.Sta.Res.Bul.33.)

1915. The value of barley for cows fed alfalfa. G. H. True, F. W. Woll, and E. C. Voorhies. p.425-445. (Calif.Agr.Expt.Sta.Bul.256.)

The feeding value of apple pomace. J. B. Lindsey. 4 p. (Mass.Agr.Expt.Sta.Circ.58.) Rev.of Circ.47.

Prickly-pears as a feed for dairy cows. T. E. Woodward, W. F. Turner and David Griffiths. (U.S.Dept.Agr.Jour.Agr.Res.v.IV,no.5,p.405-450.)

1916. The changes in composition of butter fat produced by feeding cottonseed oil. F. H. Smith, C. A. Wells and P. V. Ewing. p.95-111. (Ca.Agr.Expt.Sta.Bul.122.)

SUBJECT LIST.

DAIRY ANIMALS. Nutrition. Feeding and Feeding Stuffs.
Specific Feeding Stuffs. (Cont.)

1916. Alfalfa hay vs. timothy hay and alfalfa hay vs. bran for dairy cows. W. J. Fraser and C. C. Hayden. p.131-143. (Ill.Agr.Expt.Sta.Bul. 146, 3d ed.) 1st ed., 1910; 2d ed., 1912.
- Effects of feeding cottonseed products on the composition and properties of butter: Influence of the character of the ration and quantity of cottonseed products. C. H. Eckles and L. S. Palmer. 44 p. (Mo.Agr.Expt.Sta.Res.Bul.27.)
- Beets and mangels compared with silage for milk production. C. C. Hayden. (Ohio Agr.Expt.Sta.Monthly Bul.v.I,no.2,p.49-53.)
- Heavy silage vs. heavy grain feeding for dairy cows. C. C. Hayden. (Ohio Agr.Expt.Sta.Monthly Bul.v.I,no.5,p.141-142.)
- Fish meal: Its use as a stock and poultry food. F. C. Weber. 23 p. (U.S.Dept.Agr.Bul.378.)
- Energy values of red-clover hay and maize meal. H. P. Armsby, J. A. Fries and W. W. Braman. (U.S.Dept.Agr.Jour.Agr.Res.v.VII,no.9, p.379-387.)
1917. Velvet beans versus cottonseed meal and corn as feeds for dairy cattle. G. S. Templeton and H. C. Ferguson. p.110-117. (Ala.Agr.Expt.Sta. Bul.193.)
- Trials with California silage crops for dairy cows. F. W. Woll and E. C. Voorhies. p.19-40. (Calif.Agr.Expt.Sta.Bul.232.)
- Sunflower silage for dairy cows, a preliminary report. C. N. Arnett and Oscar Tretsven. p.75-80. (Mont.Agr.Expt.Sta.Bul.118.)
- Roughages for milk production: Legume hays may replace much high-priced grain. C. C. Hayden. (Ohio Agr.Expt.Sta.Monthly Bul.v.II, no.12,p.387-390.)
- Energy values of hominy feed and maize meal for cattle. H. P. Armsby and J. A. Fries. (U.S.Dept.Agr.Jour.Agr.Res.v.X,no.12,p.599-613.)
1918. Feeding trials of velvet-bean feed, palm-kernel meal and various grain mixtures, for dairy cows. J. J. Hooper and J. W. Nutter. p.31-38. (Ky.Agr.Expt.Sta.Circ.23.)
- The composition, digestibility and feeding value of alfalfa; the value of corn bran for milk production. J. B. Lindsey and C. L. Beals. p.105-153. (Mass.Agr.Expt.Sta.Bul.186.)

SUBJECT LIST.

DAIRY ANIMALS. Nutrition. Feeding and Feeding Stuffs.
Specific Feeding Stuffs. (Cont.)

1918. Chopped alfalfa vs. bran in grain ration for dairy cows. 11 p.
(Nebr. Agr. Expt. Sta. Bul. 164.)
- Clover vs. alfalfa for milk production. C. C. Hayden. 36 p. (Ohio Agr. Expt. Sta. Bul. 327.)
- Clover vs. alfalfa: Four feeding tests compare legumes for milk production. C. C. Hayden. (Ohio Agr. Expt. Sta. Monthly Bul. v. III, no. 6, p. 184-186.)
- Cocoanut meal vs. cottonseed meal for dairy cows. P. V. Ewing and E. R. Spence. 9 p. (Tex. Agr. Expt. Sta. Bul. 225.)
- Dairy cattle feeding experiments, [cottonseed, peanut, and velvet bean]. P. V. Ewing, J. W. Ridgway and W. A. Doubt. 14 p. (Tex. Agr. Expt. Sta. Bul. 233.)
- Net energy values of alfalfa hay and of starch. H. P. Armsby and J. A. Fries. (U. S. Dept. Agr. Jour. Agr. Res. v. XV, no. 5, p. 269-286.)
1919. The influence of barley on the milk secretion of cows. F. W. Woll and E. C. Voorhies. p. 325-334. (Calif. Agr. Expt. Sta. Bul. 305.)
- Growing and feeding sunflowers in Montana: Growing sunflowers. Alfred Atkinson and J. B. Nelson. --Feeding sunflowers. C. E. Arnett, W. E. Joseph and Oscar Tretsven. 29 p. (Mont. Agr. Expt. Sta. Bul. 131.)
1920. Sudan grass as a supplementary pasture crop for dairy cattle. L. E. Call and J. B. Fitch. 4 p. (Kans. Agr. Expt. Sta. Circ. 80.)
- The nutritive value of cattle feeds: 1, Velvet bean feed for farm stock. J. B. Lindsey and C. L. Beals. p. 61-74. (Mass. Agr. Expt. Sta. Bul. 197.)
- The nutritive value of cattle feeds: 2, Oat by-products for farm stock. J. B. Lindsey and C. L. Beals. p. 117-135. (Mass. Agr. Expt. Sta. Bul. 200.) Same. Popular ed. 1920. 10 p.
- Dairy cow feeding experiments: Corn silage vs. alfalfa hay, dried beet pulp vs. corn silage. Luther Foster and J. R. Meeks. 40 p. (N. Mex. Agr. Expt. Sta. Bul. 122.)
- Influence of rations restricted to the oat plant on reproduction in cattle. E. B. Hart, Harry Steenbock and G. C. Humphrey. p. 1-22. (Wis. Agr. Expt. Sta. Res. Bul. 49.)

SUBJECT LIST.

DAIRY ANIMALS. Nutrition. Feeding and Feeding Stuffs.
Specific Feeding Stuffs. (Cont.)

1921. Coccoanut meal as a feed for dairy cows and other livestock. F. W. Wolf.
p.241-258. (Calif.Agr.Expt.Sta.Bul.335.)
- The preparation of corn for dairy cows. A. C. McCandlish and G. E. Weaver. p.299-304. (Iowa Agr.Expt.Sta.Bul.195.)
- A comparison of silage and soiling crops for summer milk production. A. C. McCandlish. 3 p. (Iowa Agr.Expt.Sta.Bul.201.)
- Feeding ground rough rice, etc. to horses, mules, hogs and dairy cattle. A preliminary report. W. H. Dalrymple. 3 p. (La.Agr. Expt.Sta.Bul.179.)
- Feeding blackstrap molasses to young calves. R. C. Calloway. 22 p. (La.Agr.Expt.Sta.Bul.130.)
- The nutritive value of cattle feeds: 3, Dried apple pomace for farm stock. J. B. Lindsey, C. L. Beals and J. G. Archibald. p.135-143. (Mass.Agr.Sta.Bul.205.)
- Blackstrap molasses for dairy cattle. Earle Brintnall. 4 p. (Miss. Agr.Expt.Sta.Circ.38.)
- The culture and feeding of Russian sunflowers. G. R. Quesenberry, O. C. Cunningham and Luther Foster. 20 p. (N.Mex.Agr.Expt.Sta.Bul. 126.)
- Feeding cottonseed products to livestock. E. W. Sheets and E. H. Thompson. 19 p. (U.S.Dept.Agr.Farmers' Bul.1179,rev.) 1st ed., 1920.
- Sunflower silage digestion experiment with cattle and sheep. R. E. Neidig, R. S. Snyder and C. W. Hickman. (U.S.Dept.Agr.Jour.Agr.Res. v.XX,no.11,p.831-838.)
1922. Sunflower silage for milk production. S. I. Bechdel. 16 p. (Pa.Agr. Expt.Sta.Bul.172.)
- Comparison of corn ensilage and sunflower ensilage for dairy cows. W. L. Quayle. 11 p. (Wyo.Agr.Expt.Sta.State Farms Bul.3.)
- The effect of silage on the flavor and odor of milk. J. A. Gamble and Ernest Kelly. 24 p. (U.S.Dept.Agr.Bul.1097.)
1923. A comparison of roughages for milk production. A. C. McCandlish and Earl Weaver. p.275-286. (Iowa Agr.Expt.Sta.Bul.212.)

SUBJECT LIST.

DAIRY ANIMALS. Nutrition. Feeding and Feeding Stuff.
Specific Feeding Stuff. (Cont.)

1923. Silage feeding investigations for milk production. S. I. Bechdel.
23 p. (Pa. Agr. Expt. Sta. Bul. 178.)

Mineral Matter.

1906. A study of the metabolism and physiological effects of certain phosphorus compounds with milch cows. [I]. W. H. Jordan, E. B. Hart and A. J. Patten. 59 p. (N.Y., State Agr. Expt. Sta. Tech. Bul. 1.)
Tech. Bul. 20 is a continuation of Tech. Bul. 1.
1912. A study of the metabolism and physiological effects of certain phosphorus compounds with milch cows. II. A. R. Rose. 32 p. (N.Y., State Agr. Expt. Sta. Tech. Bul. 20.) Tech. Bul. 20 is a continuation of Tech. Bul. 1.
1914. A review of the literature of phosphorus compounds in animal metabolism. E. B. Forbes and M. H. Keith. 743 p. (Ohio Agr. Expt. Sta. Bul. 5, Tech. Ser.)
- The metabolism of organic and inorganic compounds of phosphorus. E. B. Forbes [and others]. 80 p. (Ohio Agr. Expt. Sta. Bul. 6, Tech. Ser.)
- Calcium and phosphorus supply of farm feeds and their relation to the animal's requirements. E. B. Hart, Harry Steenbock and J. G. Fuller. p. 1-28. (Wis. Agr. Expt. Sta. Res. Bul. 30.)
1915. Studies on the estimation of inorganic phosphorus in plant and animal substances. E. B. Forbes, F. M. Beegle and A. F. D. Wussow. 48 p. (Ohio Agr. Expt. Sta. Bul. 8, Tech. Ser.)
1916. The mineral metabolism of the milch cow: First paper. E. B. Forbes [and others]. p. 323-348. (Ohio Agr. Expt. Sta. Bul. 295.)
- The mineral requirements of the milch cow. E. B. Forbes. (Ohio Agr. Expt. Sta. Monthly Bul. v. I, no. 6, p. 186-188.)
1917. The mineral metabolism of the milch cow: Second paper. E. B. Forbes [and others]. p. 449-481. (Ohio Agr. Expt. Sta. Bul. 308.)
- Mineral requirements of milch cows: Heavy milk production involves loss of minerals from body. E. B. Forbes. (Ohio Agr. Expt. Sta. Monthly Bul. v. II, no. 2, p. 58-60.)
1918. The mineral metabolism of the milch cow: Third paper. E. B. Forbes [and others]. p. 89-134. (Ohio Agr. Expt. Sta. Bul. 330.)

SUBJECT LIST.

DAIRY ANIMALS. Nutrition. Feeding and Feeding Stuffs.
Mineral Matter. (Cont.)

1918. Mineral metabolism of the milch cow: Legumes highly essential in feeding for heavy milk production. E. B. Forbes. (Ohio Agr. Expt. Sta. Monthly Bul. v. III, no. 1, p. 8-10.)

New facts on feeding cattle for successful growth and reproduction. E. B. Hart, Harry Steenbock and G. C. Humphrey. 24 p. (Wis. Agr. Expt. Sta. Bul. 287.)

1920. Mineral feeds for farm animals: Practical suggestions deduced from experimental data. E. B. Forbes. (Ohio Agr. Expt. Sta. Monthly Bul. v. V, no. 7, p. 205-215.)

1922. The mineral metabolism of the milch cow. E. B. Forbes [and others]. 59 p. (Ohio Agr. Expt. Sta. Bul. 363.)

The influence of calcium and phosphorus in the feed on the milk yield of dairy cows. E. B. Meigs and T. E. Woodward. 28 p. (U.S. Dept. Agr. Bul. 945, rev.) 1st ed., 1921.

1923. Minerals for livestock. E. B. Hart, H. Steenbock and F. B. Morrison. 21 p. (Wis. Agr. Expt. Sta. Bul. 350.)

DAIRY ANIMALS. Cattle.

1900. Selecting dairy cows. G. H. True. p. 97-99. (Ariz. Agr. Expt. Sta. Timely Hints for Farmers 15.)

A study of dairy cows. C. L. Beach. 40 p. (Conn., Storrs, Agr. Expt. Sta. Bul. 20.)

The manurial value of the excreta of milch cows. W. S. Sweetser. 7 p. (Pa. Agr. Expt. Sta. Bul. 54.)

1901. A modern dairy barn. A. A. Brigham.-- Individuality of cows. W. A. Conant. p. 17-107. (R. I. Agr. Expt. Sta. Bul. 80.)

1902. Conformation of beef and dairy cattle. A. M. Soule. 44 p. (U.S. Dept. Agr. Farmers' Bul. 143.)

1904. Experiments with dairy cows. D. H. Otis. p. 59-161. (Kans. Agr. Expt. Sta. Bul. 125.)

Scales of points for judging cattle of dairy breeds. H. E. Alvord. 14 p. (U.S. Dept. Agr. Bur. Anim. Indus. Circ. 48.)

1906. First annual report of grade dairy herd. R. S. Shaw and A. C. Anderson. p. 165-176. (Mich. Agr. Expt. Sta. Bul. 238.)

DAIRY ANIMALS. Price. \$.
Cattle. (Cont.)

1906. The dairy cow. J. S. Moore. 23 p. (Miss.Agr.Expt.Sta.Bul.95.)
1907. Milk production: I, Herd improvement. H. A. Hopper. 3 p. (Ind.Agr. Expt.Sta.Circ.11.)
1909. Comparison and improvement of dairy herds in Tennessee. S. E. Barnes. 12 p. (Tenn.Agr.Expt.Sta.Bul.83.)
- The university dairy herd, 1908-9. G. C. Humphrey and F. W. Woll. 22 p. (Wis.Agr.Expt.Sta.Bul.187.)
1910. Better cows. F. L. Kent. p.26-30. (Oreg.Agr.Expt.Sta.Circ.8.)
1911. Second report of grade dairy herd. A. C. Anderson. p.77-89. (Mich. Agr.Expt.Sta.Bul.264.)
- Eckles, C. H. Dairy cattle and milk production. New York, The Macmillan co. 342 p.
- Van Pelt, H. G. Van Pelt's cow demonstration. 8th ed. Waterloo, Iowa, Kimball's dairy farmer. 85 p.
1912. Agricultural extension: XII, Live stock judging for beginners: IV, Judging dairy cattle. P. H. Crane. p.56-75. (Ind.Agr.Expt.Sta. Circ.29,rev.) 1st ed., 1911.
- "Mony meikles mak a muckle": Studies of the rennet coagulation of milk. R. M. Washburn and A. P. Bigelow.-- The control of the moisture content of butter. C. L. Beach, A. P. Bigelow and R. H. Allen.-- A bacterial infection of condensed milk. L. A. Thayer.-- The value of the escutcheon in judging dairy cattle. C. F. Moran.-- Mock silage. C. L. Beach. p.120-127. (Vt.Agr.Expt.Sta.Bul.170.)
1913. Feeding dairy cattle. V. E. Scott.-- The judging of dairy cattle. G. H. True.-- Improving the raw product. V. E. Scott. (Nev.Agr. Expt.Sta.Better Farming,v.I,no.5.)
1914. The cost of raising a dairy cow. C. M. Bennett and M. O. Cooper. 23 p. (U.S.Dept.Agr.Bul.49.)
1915. The ration and age of calving as factors influencing the growth and dairy qualities of cows. C. H. Eckles. 91 p. (Mo.Agr.Expt.Sta. Bul.135.)
1916. Judging dairy cows. G. C. Humphrey. 41 p. (Wis.Agr.Expt.Sta.Bul. 274.)
- Influence of age on the value of dairy cows and farm work horses. J. C. McDowell. 12 p. (U.S.Dept.Agr.Bul.413.)

SUBJECT LIST.

DAIRY ANIMALS.

Cattle. (Cont.)

1916. Judging the dairy cow as a subject of instruction in secondary schools
H. P. Barrows and H. P. Davis. 20 p. (U.S.Dept.Agr.Bul.434.)
1917. Economy of production by dairy cows: A comparison of large and small
cows in milk yield. R. I. Grady. (Ohio Agr.Expt.Sta.Monthly Bul.
v.II,no.10,p.334-338.)
1918. Profits from milk cows on general cornbelt farms. C. R. Johnson and
R. M. Green. 20 p. (Mo.Agr.Expt.Sta.Bul.159.)
1919. The Ohio Experiment Station dairy herd. Department of Dairy Husbandry
(Ohio Agr.Expt.Sta.Monthly Bul.v.IV,no.7,p.225-227.)
- Trend of the dairy-cattle industry in the United States and other
countries. Simple charts with interpretations. T. R. Pirtle. 19 p
(U.S.Dept.Agr.Dept.Circ.7.)
1920. The normal growth of dairy cattle. C. H. Eckles. 20 p. (Mo.Agr.
Expt.Sta.Res.Bul.36.)
- Composition of the bovine at birth. L. D. Haigh, C. R. Moulton and
P. F. Trowbridge. 47 p. (Mo.Agr.Expt.Sta.Res.Bul.38.)
1921. Judging dairy cattle. G. C. Humphrey. 44 p. (Wis.Agr.Expt.Sta.Bul.
335.)
- Observations on the body temperature of dry cows. Max Kriss. (U.S.
Dept.Agr.Jour.Rec.v.XXI,no.1,p.1-23.)
1922. Influence of age at the time of freshening on production of dairy cows.
A. C. McCandlish. p.243-255. (Iowa Agr.Expt.Sta.Res.Bul.73.)
- Raising dairy cattle. J. O. Tretsvén. 20 p. (Mont.Agr.Expt.Sta.
Circ.104.)
- Relation of production to income from dairy cows. J. C. McDowell.
20 p. (U.S.Dept.Agr.Bul.1069.)
- Influence of season of freshening on production and income from dairy
cows. J. C. McDowell. 10 p. (U.S.Dept.Agr.Bul.1071.)
1923. Raising dairy steers. C. C. Hayden. (Ohio Agr.Expt.Sta.Monthly Bul.
v.VIII,nos.5 & 6,p.84-85.)

SUBJECT LIST.

DAIRY ANIMALS. Cattle.
Breeds and Breeding.

1906. A plan for the improvement of Michigan cattle. R. S. Shaw. p.35-55. (Mich.Agr.Expt.Sta.Bul.241.)
1909. Methods of breeding for the improvement of Michigan cattle; organization of cooperative cattle breeders' associations in Michigan. R. S. Shaw and W. F. Raven. p.33-44. (Mich.Agr.Expt.Sta.Circ.4.)
1910. Community breeders' associations for dairy cattle improvement. G. C. Humphrey. 21 p. (Wis.Agr.Expt.Sta.Bul.189.)
- Davenport, Eugene. Domesticated animals and plants; a brief treatise upon the origin and development of domesticated races, with special reference to the methods of improvement. Boston, Ginn & co. 321 p.
1911. Cattle breeders' associations in Denmark. Frederik Rasmussen. 40 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.129.)
1913. The measurement of the intensity of inbreeding. Raymond Pearl. p.123-138. (Me.Agr.Expt.Sta.Bul.215.)
- Tables for calculating coefficients of inbreeding. Raymond Pearl and J. R. Minor. p.191-202. (Me.Agr.Expt.Sta.Bul.218.)
- Building up the dairy herds of Ohio. p.79-100. (Ohio Agr.Expt.Sta.Circ.135.)
- The influence of breed and individuality on the composition and properties of milk. C. H. Eckles and R. H. Shaw. 27 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.156.)
1914. Announcement of dairy short course and farmers' week.-- Breeds of dairy cattle. V. E. Scott. 14 p. (Nev.Agr.Expt.Sta.Better Farming, v.II, no.1.)
- Report of four years' work of the North Dakota Holstein cattle breeding circuit. J. H. Sheppard and W. B. Richards. p.95-158. (N.Dak.Agr.Expt.Sta.Bul.109.)
1915. Further data on the measurement of inbreeding. Raymond Pearl. p.225-248. (Me.Agr.Expt.Sta.Bul.243.)
1916. Influence of environment and breeding in increasing dairy production. H. H. Kildee and A. C. McCandlish. p.383-402. (Iowa Agr.Expt.Sta.Bul.165.)
- Report of the first Jersey sires' futurity test of the Aroostock Jersey Breeders' Association. Raymond Pearl. p.37-52. (Me.Agr.Expt.Sta.Bul.247.)

SUBJECT LIST.

DAIRY ANIMALS. Cattle.

Breeds and Breeding. (Cont.)

1916. The influence of sires on production. C. C. Hayden. (Ohio Agr. Expt. Sta. Monthly Bul. v. I, no. 7, p. 211-215.)
- A sex-limited color in Ayrshire cattle. E. N. Wentworth. (U. S. Dept. Agr. Jour. Res. v. VI, no. 4, p. 141-147.)
1917. Some commonly neglected factors underlying the stock breeding industry. Raymond Pearl. 28 p. (Me. Agr. Expt. Sta. Bul. 258.)
- Selecting dairy bulls by performance. W. E. Carroll. 19 p. (Utah Agr. Expt. Sta. Bul. 152.)
- "Mony meikles mak a muckle", II: The relation of the milk-vein system to production. A. W. Aldrich and J. W. Dana.-- The cost of production of milk and butterfat in 1911 and 1912. G. M. Nelson.-- The effect of the sire on the herd. J. H. Wilson.-- Concerning the Burlington milk supply. J. E. Carrigan and W. T. Abell. 47 p. (Vt. Agr. Expt. Sta. Bul. 202.)
- Cooperative bull associations. J. G. Winkjer. p. 311-319. (U. S. Dept. Agr. Yearbook, 1916, Sep. 718.) Superseded by Farmers' Bul. 993.
- Mumford, F. B. The breeding of animals. New York, The Macmillan co. 310 p.
1918. Inheritance studies of certain color and horn characteristics in first generation crosses of dairy and beef breeds. J. W. Gowen. p. 129-148. (Me. Agr. Expt. Sta. Bul. 272.) Abstract of U. S. Dept. Agr. Jour. Agr. Res. 15 (1918) no. 1, p. 1-58.
- Studies in inheritance of certain characters of crosses between dairy and beef breeds of cattle. J. W. Gowen. (U. S. Dept. Agr. Jour. Agr. Res. v. XV, no. 1, p. 1-58.) For abstract see Me. Agr. Expt. Sta. Bul. 272.
1919. Influence of environment and breeding in increasing dairy production, II. A. C. McCandlish, L. S. Gillette, and H. H. Kildee. p. 65-88. (Iowa Agr. Expt. Sta. Bul. 188.)
- Studies in milk secretion: VII, Transmitting qualities of Jersey sires for milk yield, butter-fat percentage and butter-fat. Raymond Pearl. J. W. Gowen and J. R. Rice. p. 165-204. (Me. Agr. Expt. Sta. Bul. 281.)
- Purebred sires effect herd improvement. M. N. Lawritson, J. W. Hendrickson, and W. B. Nevens. 15 p. (Nebr. Agr. Expt. Sta. Circ. 8.)
- Van Pelt, H. G. How to feed the dairy cow, breeding and feeding dairy cattle. Waterloo, Iowa, Fred L. Kimball co. 290 p.

SUBJECT LIST.

DAIRY ANIMALS. Cattle.

Breeds and Breeding. (Cont.)

1920. Influence of rations restricted to the oat plant on reproduction in cattle. E. B. Hart, Harry Steenbock and G. C. Humphrey. p.1-22. (Wis.Agr.Expt.Sta.Res.Bul.49.)
- Breeds of dairy cattle. H. P. Davis. 35 p. (U.S.Dept.Agr.Farmers' Bul.893,rev.) 1st ed., 1917.
- Cooperative bull associations. J. G. Winkjer. 34 p. (U.S.Dept. Agr.Farmers' Bul.993,rev.) 1st ed., 1918. Supersedes Yearbook Sep.718.
- Plumb, C. S. Types and breeds of farm animals. Rev.ed. Boston, Ginn & co. 820 p.
1921. Studies of dairy cattle. (Research bulletin.) J. J. Hooper and P. E. Bacon. p.95-161. (Ky.Agr.Expt.Sta.Bul.234.)
- Studies in milk secretion: IX, On the performance of the progeny of Holstein-Friesian sires. J. W. Gowen and Mildred R. Covell. p.121-252. (Me.Agr.Expt.Sta.Bul.300.)
- Studies in milk secretion: XII, Transmitting qualities of Holstein-Friesian sires for milk yield, butter-fat percentage and butter-fat. J. W. Gowen and Mildred R. Covell. p.253-308. (Me.Agr. Expt.Sta.Bul.301.)
- Your future herd. Dairy Division. Folder. (U.S.Dept.Agr.Bur.Anim. Indus.[Pub.] D.D.E.10.)
1922. A case of twinning in dairy cattle. C. C. Hayden. (Ohio Agr.Expt. Sta.Monthly Bul.v.VII,nos.3 & 4,p.54-57.)
- Influence of purebred dairy sires. T. M. Olson and G. C. Biggar. p.433-467. (S.Dak.Agr.Expt.Sta.Bul.198.)
- Motion pictures of the U. S. Department of Agriculture [including films on dairying]. 13 p. (U.S.Dept.Agr.Dept.Circ.233.)
1923. Essentials of animal breeding. G. M. Rommel. 38 p. (U.S.Dept.Agr. Farmers' Bul.1167,rev.) 1st ed., 1920.
- Ayrshire Digest. Spencer, Mass. Monthly. \$1.50.
- Brown Swiss Bulletin. Beloit, Wis. Monthly. \$1.00.
- Guernsey Breeders' Journal. Peterboro, N. H. Semi-monthly. \$2.00.

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DAIRY ANIMALS. Cattle.

Breeds and Breeding. (Cont.)

1923. Holstein-Breeder and Dairyman. Harrisburg, Pa. Semi-monthly 1 year, \$1.75, 2 years, \$1.00.
- Holstein-Friesian Register. Brattleboro, Vt. Semi-monthly. \$1.00; Canada, \$1.25; Foreign, \$1.50.
- Holstein-Friesian World. Syracuse, N. Y. Weekly. 1 year, \$1.00, 3 years, \$2.00; Canada and Foreign, 1 year, \$2.00, 3 years, \$5.00.
- Jersey Bulletin and Dairy World. Indianapolis, Ind. Weekly. 1 year, \$2.00, 2 years, \$3.00; Canada, \$2.50; Foreign, \$4.00.
- Milking Shorthorn Journal. Independence, Iowa. Bi-monthly.
- Red Polled Journal. Minneapolis, Minn. Monthly. 1 year, \$1.00, 2 years, \$1.75; Canada, 1 year, \$1.25, 2 years, \$2.25; Foreign, 1 year, \$1.50, 2 years, \$2.75.

Care and Management.

1900. The influence of feed and care on the individuality of cows. C. F. Doane. p.31-60. (Md.Agr.Expt.Sta.Bul.59.)
1901. The dehorning of stock. C. F. Doane. p.39-49. (Md.Agr.Expt.Sta.Bul. 78.)
1902. The dairy cow and the weather. G. H. True. p.223-226. (Ariz.Agr. Expt.Sta.Timely Hints for Farmers 38.)
- Feeding corn stover; dehorning milch cows. C. M. Conner. 9 p. (S.C. Agr.Expt.Sta.Bul.66.)
1904. Dairy observations: I, Dehorning; II, milking records; III, skim milk fed calves. C. L. Beach. 20 p. (Conn., Storrs, Agr.Expt.Sta.Bul.23.)
- Protecting cows from flies. C. L. Beach and A. B. Clark. 14 p. (Conn., Storrs, Agr.Expt.Sta.Bul.32.)
1905. Tests of materials for bedding cows. C. F. Doane. 9 p. (Md.Agr.Expt. Sta.Bul.104.)
1909. The dehorning of cattle. R. W. Hickman. 14 p. (U.S.Dept.Agr.Farmers' Bul.350.)
- Shaw, Thomas. Management and feeding of cattle. New York, Orange Judd publishing co. 461 p.

SUBJECT LIST.

DAIRY ANIMALS. Cattle.

Care and Management. (Cont.)

1910. Should dairy cows be confined in stalls? W. J. Fraser. 24 p. (Ill. Agr.Expt.Sta.Circ.93,3d ed.) 1st ed., 1905.
1911. Care and management of the dairy herd. J. C. McNutt. p.73-84. (N.C. Agr.Expt.Sta.Bul.220.)
1913. Care of the dairy herd. p.101-126. (Ohio Agr.Expt.Sta.Circ.136.)

Dairying in Oklahoma: I, Some results obtained in feeding dairy cows. R. C. Potts.-- II, Principles of feeding, feeding dairy cattle and experiments in milk production. C. I. Bray.-- III, Care and management of dairy cattle. C. I. Bray. 55 p. (Okla.Agr.Expt.Sta.Bul. 99.)

1915. Care, feed and management of the dairy herd. H. H. Kildee. 40 p. (Iowa Agr.Expt.Sta.Circ.16,2d ed.) 1st ed., 1914.
1916. Does it pay to take extra care of cows? C. C. Hayden. (Ohio Agr. Expt.Sta.Monthly Bul.v.I,no.8,p.245-248.)
1917. Care and management of the dairy herd. R. S. Hulce and W. B. Nevens. 29 p. (Ill.Agr.Expt.Sta.Circ.204.)

Larson, C. W. Dairy cattle feeding and management, by C. W. Larson and F. S. Putney. New York, John Wiley & sons, inc. 471 p.

1920. The bull and the treadmill. Oscar Tretsvén and H. E. Murdock. 7 p. (Mont.Agr.Expt.Sta.Circ.93.)

Roberts, M. H., jr. Feeding and management of dairy cattle for official production. New York, Longmans, Green & co. 294 p.

1921. The college dairy herd; development, care and management. J. O. Tretsvén. 24 p. (Mont.Agr.Expt.Sta.Bul.145.)
1922. Feeding and managing dairy cows in Montana. J. O. Tretsvén. 16 p. (Mont.Agr.Expt.Sta.Circ.106.)

Records and Testing.

1900. The value of a dairy herd record. G. H. True. p.256-259. (Ariz. Agr.Expt.Sta.Timely Hints for Farmers 23.)

Experiments with dairy cows: I, A study of their records; II, winter feeding experiments; III, summer feeding experiments. F. B. Linfield. p.167-309. (Utah Agr.Expt.Sta.Bul.63.)

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DAIRY ANIMALS. Cattle.

Records and Testing. (Cont.)

1901. Dairy herd records. G. H. True. p.293-309. (Aris.Agr.Expt.Sta.Bul. 39.)
- Individual differences in the value of dairy cows. W. J. Fraser. p.95-108. (Ill.Agr.Expt.Sta.Bul.66.) Circ.50 is an extract from Bul.66.
- Records of station cows; feeding dairy cows. J. S. Moore. 19 p. (Miss.Agr.Expt.Sta.Bul.70.)
- Butter and milk tests of registered cows. J. F. Hickman. p.54-56. (Ohio Agr.Expt.Sta.Circ.29.)
- Instructions to testers. J. F. Hickman. p.56-58. (Ohio Agr.Expt. Sta.Circ.30.)
1902. Dairy herd record and creamery notes. R. W. Clark. p.183-203. (Ala. Agr.Expt.Sta.Bul.121.)
- Individual differences in the value of dairy cows. W. J. Fraser. 8 p. (Ill.Agr.Expt.Sta.Circ.50.) Circ.50 is an extract from Bul.66.
1903. Records of individual cows on dairy farms. A. J. Glover. 44 p. (Ill. Agr.Expt.Sta.Bul.85.)
- Experiments with dairy herd: I, The herd record; II, ration tests for dairy cows; III, the best week in a cow's lactation period. A. L. Haecker. 21 p. (Nebr.Agr.Expt.Sta.Bul.76.)
- Studies in milk production based on records of cows in the university dairy herd, 1898-1903. W. L. Carlyle and F. W. Woll. 88 p. (Wis. Agr.Expt.Sta.Bul.102.)
- Official tests of dairy cows, 1902-3. F. W. Woll. 43 p. (Wis.Agr. Expt.Sta.Bul.107.)
1904. Dairy observations: I, Dehorning; II, milking records; III, skim milk fed calves. C. L. Beach. 20 p. (Conn., Storrs, Agr.Expt.Sta.Bul.28.)
- Records of a dairy herd for five years. C. L. Beach. 32 p. (Conn., Storrs, Agr.Expt.Sta.Bul.29.)
- Improvement of dairy herds. H. A. Hopper. 15 p. (Ill.Agr.Expt.Sta. Circ.76.)
- Records of individual cows on dairy farms. A. J. Glover. 31 p. (Ill. Agr.Expt.Sta.Circ.77.)

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DAIRY ANIMALS. Cattle.

Records and Testing. (Cont.)

1904. Records of dairy herds. A. J. Glover. 38 p. (Ill.Agr.Expt.Sta. Circ.84.)
- Systems for keeping milk and butter records. C. F. Doane. 22 p. (Md.Agr.Expt.Sta.Bul.94.)
1905. The milk scales, the milk sheet, and the Babcock test for the farmers of South Carolina. B. H. Rawl. 17 p. (S.C.Agr.Expt.Sta. Bul.95.)
- Official tests of dairy cows, 1904-5. F. W. Woll. 46 p. (Wis.Agr. Expt.Sta.Bul.131.)
- Records of dairy cows in the United States. C. B. Lane. 184 p. (U.S.Dept.Agr.Bur.Anim.Indus.Bul.75.) Bur.Anim.Indus.Circ.103 is largely an abstract of Bur.Anim.Indus.Bul.75.
1906. Testing individual cows. H. A. Hopper. 40 p. (Ill.Agr.Expt.Sta. Circ.102.)
- Story of Rose and Queen. W. J. Fraser. 4 p. (Ill.Agr.Expt.Sta. Circ.103.)
1907. Remarkable difference in dairy cows. W. J. Fraser. 16 p. (Ill.Agr. Expt.Sta.Circ.106.)
- Maple spring dairy. W. J. Fraser. 16 p. (Ill.Agr.Expt.Sta.Circ. 113.)
- Rules relative to testing dairy cows. 6 p. (Mass.Agr.Expt.Sta. Circ.9.) Supp.by Circ.15, for rev.see Circs.23, 57.
- Dairy herd record for ten years; cost of butter fat production. A. L. Haecker. 38 p. (Nebr.Agr.Expt.Sta.Bul.101.)
- The value of individual records of dairy cows. B. E. Carmichael. 10 p. (Ohio Agr.Expt.Sta.Circ.67.)
- The testing of cows. J. L. Hills. p.55-88. (Vt.Agr.Expt.Sta.Bul. 128.)
- Studies in milk and butter production. A. M. Soule, J. R. Fain and M. P. Jarnagin. 44 p. (Va.Agr.Expt.Sta.Bul.170.)
- Official tests of dairy cows, 1905-6. F. W. Woll and R. T. Harris. 65 p. (Wis.Agr.Expt.Sta.Bul.144.)

SUBJECT LIST.

DAIRY ANIMALS. Cattle.

Records and Testing. (Cont.)

1907. Records of dairy cows: Their value and importance in economic milk production. C. B. Lane. 38 p. (U.S. Dept. Agr. Bur. Anim. Indus. Circ. 103.) Abstract of Bur. Anim. Indus. Bul. 75.
1908. Co-operative dairy investigations by the Georgia Experiment Station and the Dairy Division, United States Department of Agriculture. P. N. Flint and J. E. Dorman. 143-172. (Ga. Agr. Expt. Sta. Bul. 80.)
- The problem of the poor cow. W. J. Fraser. 3 p. (Ill. Agr. Expt. Sta. Circ. 114.)
- Why and how to test dairy cows. W. J. Fraser. 12 p. (Ill. Agr. Expt. Sta. Circ. 115.)
- Records from Indiana dairy herds. O. F. Hunziker, H. A. Hopper and H. J. Fidler. p. 163-216. (Ind. Agr. Expt. Sta. Bul. 127.)
- Report of dairy herds and their milk production at Hammond, La., and vicinity. T. E. Woodward and J. G. Lee, jr. 23 p. (La. Agr. Expt. Sta. Bul. 102.)
- The unprofitable cow and how to detect her. 4 p. (Mass. Agr. Expt. Sta. Circ. 12.)
- The cost of testing pure bred cows. J. B. Lindsey. 4 p. (Mass. Agr. Expt. Sta. Circ. 15.) Supp. to Circ. 9, for rev. see Circs. 28, 57.
- Tests of dairy cows, 1906-7. F. W. Woll and R. T. Harris. 39 p. (Wis. Agr. Expt. Sta. Bul. 160.)
- The university dairy herd management and records, 1907-8. G. C. Humphrey, and F. W. Woll. 27 p. (Wis. Agr. Expt. Sta. Bul. 167.)
1909. The dairy cow's record and stable. Leroy Anderson [and C. W. Rubel]. p. 65-90. (Calif. Agr. Expt. Sta. Bul. 204.)
- A study of some Connecticut dairy herds. J. M. Trueman. p. 287-310. (Conn., Storrs, Agr. Expt. Sta. Bul. 57.)
- The dairy cow and her record. W. K. Brainerd. 23 p. (Va. Agr. Expt. Sta. Circ. 8.)
- Tests of dairy cows, 1907-8. F. W. Woll and R. T. Harris. 33 p. (Wis. Agr. Expt. Sta. Bul. 172.)
- The Wisconsin dairy cow competition. F. W. Woll. 9 p. (Wis. Agr. Expt. Sta. Circ. of Inform. 9.)

SUBJECT LIST.

DAIRY ANIMALS. Cattle.

Records and Testing. (Cont.)

1910. The Illinois competitive cow test. O. C. Hayden. 12 p. (Ill. Agr. Expt. Sta. Circ. 144, rev.) Original ed. destroyed as it contained an error.

Rules relative to testing dairy cows. P. H. Smith. 6 p. (Mass. Agr. Expt. Sta. Circ. 23.) Rev. of Circs. 9, 15, for rev. see Circ. 57.

The individual animal as the unit in profitable dairying. G. A. Smith. 16 p. (N.Y., State Agr. Expt. Sta. Bul. 322.)

Popular ed. Robber cows in dairy herds. Summarized by F. H. Hall from bulletin by G. A. Smith. 3 p.

Cooperative dairy work. L. H. Goddard and M. O. Bugby. 8 p. (Ohio Agr. Expt. Sta. Circ. 99.)

A decade of official tests of dairy cows, 1899-1909, with tests conducted during 1908-9. E. W. Woll and R. T. Harris. 49 p. (Wis. Agr. Expt. Sta. Bul. 191.)

1911. Dairy herd records. J. H. Shepperd and W. B. Richards. p. 129-168. (N. Dak. Agr. Expt. Sta. Bul. 91.)

Cooperative herd testing. W. D. Saunders and C. W. Holdaway. 30 p. (Va. Agr. Expt. Sta. Bul. 190.)

Cow-testing associations. Helmer Rabild. 24 p. (U.S. Dept. Agr. Bur. Anim. Indus. Circ. 179.)

1912. Three years' work of the Ferndale (Humboldt County) cow-testing association. Leroy Anderson. p. 459-482. (Calif. Agr. Expt. Sta. Bul. 233.)

Records of a dairy herd for five years. J. M. Trueman. p. 127-148. (Conn., Storrs, Agr. Expt. Sta. Bul. 73.)

Official records of pure-bred dairy cows. C. C. Hayden. p. 249-276. (Ill. Agr. Expt. Sta. Bul. 160.)

Cow-testing associations. G. H. Hibbard and G. E. Wolcott. p. 29-72. (Md. Agr. Expt. Sta. Bul. 169.)

Keeping records of dairy cows. C. H. Eckles. p. 177-184. (Mo. Agr. Expt. Sta. Circ. 57.)

Results of the Douglas County cow testing association. A. L. Haecker and J. H. Frandsen. 15 p. (Nebr. Agr. Expt. Sta. Bul. 129.)

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DAIRY ANIMALS. Cattle.

Records and Testing. (Cont.)

1912. Cow testing associations. A. S. Cook. 16 p. (N.J. Agr. Expt. Sta. Circ. 16.)
- Organizing cow-testing associations and co-operative creameries. G. L. Martin. 26 p. (W. Dak. Agr. Expt. Sta. Bul. 102.)
- Testing the dairy cow. T. R. Middaugh. p. 123-134. (Ohio Agr. Expt. Sta. Circ. 122.)
- The Wisconsin dairy cow competition. F. W. Woll and R. T. Harris. 36 p. (Wis. Agr. Expt. Sta. Bul. 226.) For more detailed discussion see Res. Bul. 26.
- Studies in dairy production based on the records secured in the Wisconsin dairy cow competition, 1909-11. F. W. Woll. p. 55-135. (Wis. Agr. Expt. Sta. Res. Bul. 26.) For less detailed account see Bul. 226.
1913. Advantages to the breeder in testing his pure-bred cows for the register of merit. C. J. Hill. 2 p. (Calif. Agr. Expt. Sta. Circ. 88.)
- Detecting dairy losses. L. M. Davis. 2 p. (Calif. Agr. Expt. Sta. Circ. 95.)
- Increasing dairy profits. H. E. Van Norman. 1 p. (Calif. Agr. Expt. Sta. Circ. 97.)
- Cows, vs. cows. W. J. Fraser. 27 p. (Ill. Agr. Expt. Sta. Circ. 118, 3d ed.) 1st ed., 1908.
- Cow index of keep and profit. W. J. Fraser. (Ill. Agr. Expt. Sta. Circ. 134, 2d ed.) 1st ed., 1909.
- Record of the station dairy herd and the cost of milk production. J. B. Lindsey. 31 p. (Mass. Agr. Expt. Sta. Bul. 145.)
- The formation of cow-testing associations. H. H. Wing. p. 53-64. (N.Y., Cornell, Agr. Expt. Sta. Circ. 17.)
- Report of the Richmond-Lewiston cow testing association. W. E. Carroll p. 193-242. (Utah Agr. Expt. Sta. Bul. 127.)
- Dairy herd records. (From 1899 to 1903, inclusive.) A digest prepared by the Dairy division from data collected by W. D. Hoard. 57 p. (U.S. Dept. Agr. Bur. Anim. Indus. Bul. 164.)
1914. Report of the Dickinson County cow-testing association. Results of the first year. O. E. Reed. 8 p. (Kans. Agr. Expt. Sta. Circ. 35.)

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DAIRY ANIMALS. Cattle.

Records and Testing. (Cont.)

1914. Record blank for dairy cattle. 2 p. (Me.Agr.Expt.Sta.Misc.Pub.500.)
- Profitable and unprofitable cows: Cow testing associations in Maryland. G. S. Wolcott. p.115-134. (Md.Agr.Expt.Sta.Bul.137.)
- Dairy herd records for fourteen years. J. H. Frandsen and A. L. Haecker. 30 p. (Nebr.Agr.Expt.Sta.Bul.139.)
1915. Official tests of dairy cows. F. W. Woll and Cora J. Hill. 10 p. (Calif.Agr.Expt.Sta.Circ.135.)
- Rules relative to testing dairy cows. 4 p. (Mass.Agr.Expt.Sta.Circ. 57.) Rev.of Circ.28.
- Advanced registry tests in New Jersey. A. S. Cook. 7 p. (N.J.Agr. Expt.Sta.Circ.33.)
- Dairy herd records, their value, and how to keep them. A. B. Nystrom and R. E. Hundertmark. 16 p. (Wash.Agr.Expt.Sta.Pop.Bul.97.)
1916. Announcement of the California state dairy cow competition, 1916-18. F. W. Woll. 8 p. (Calif.Agr.Expt.Sta.Circ.153.)
- Cow records pay. (N.C.Agr.Expt.Sta.Circ.33.) Printed on heavy paper 16x20 in., on reverse of a blank for "Daily Milk and Feed Record."
1917. Cow testing associations. E. M. Clark. 10 p. (Ill.Agr.Expt.Sta. Circ.196.)
- Stage of lactation affects milk yield: Persistent milkers become winners in long run. R. I. Grady. (Ohio Agr.Expt.Sta.Monthly Bul. v.II,no.12,p.401-406.)
- Illustrated lecture on cow testing and dairy records. Duncan Stuart. 10 p. (U.S.Dept.Agr.Syllabus 30.)
1918. California state dairy cow competition, 1916-18. F. W. Woll. p.155-204. (Calif.Agr.Expt.Sta.Bul.301.)
- Butterfat and income. J. C. McDowell. p.357-362. (U.S.Dept.Agr. Yearbook, 1917, Sep.743.)
1919. Cow-testing associations in California. E. C. Voorhies. p.157-193. (Calif.Agr.Expt.Sta.Bul.314.)
- Advanced registry testing. H. P. Davis. 11 p. (Idaho Agr.Expt.Sta. Circ.9.)

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DAIRY ANIMALS. Cattle.

Records and Testing. (Cont.)

1919. A study of the relative reliability of official tests of dairy cows. W. W. Yapp. p.323-339. (Ill.Agr.Expt.Sta.Bul.215.) Abstract. 1919. 4 p.
- Usefulness of production records in dairy management: Three hours' time per cow a year required to secure data. A. E. Perkins. (Ohio Agr.Expt.Sta.Monthly Bul.v.IV,no.12,p.369-371.)
1920. Advanced-registry testing of dairy cows. F. W. Woll and P. I. Dougherty. 15 p. (Calif.Agr.Expt.Sta.Circ.218.)
- Advanced registry testing in Indiana. L. H. Fairchild. 16 p. (Ind. Agr.Expt.Sta.Circ.102.)
- Rules for testing dairy cows for advanced registration. J. B. Fitch and F. W. Atkeson. 12 p. (Kans.Agr.Expt.Sta.Circ.82.)
- Studies in milk secretion: VIII, On the influence of age on the milk yield and butter-fat percentage, as determined from the 365-day records of Holstein-Friesian cattle. J. W. Gowen. p.185-196. (Me.Agr.Expt.Sta.Bul.293.)
- Official testing of dairy cattle. A. C. Ragsdale and C. W. Turner. 12 p. (Mo.Agr.Expt.Sta.Circ.96.)
- A comparison of fat tests in milk as determined by a cow-testing association and by a creamery. H. C. Troy. p.3-68. (N.Y., Cornell, Agr.Expt.Sta.Bul.400.)
- Roberts, M. H., jr. The dairy record and feeding chart. New York, Longmans, Green & co. 215 p.
1921. Official records in the Ohio Station dairy herds. C. C. Hayden. (Ohio Agr.Expt.Sta.Monthly Bul.v.VI,nos.5 & 6,p.82-84.)
- Cows that make the income climb. J. C. McDowell. p.401-412. (U.S. Dept.Agr.Yearbook, 1920, Sep.853.)
1922. Studies in milk secretion: XVII, Relation between milk yields and butter-fat percentage of the 7-day and 365-day tests of Holstein-Friesian advanced registry cattle. Marie S. Gowen and J. W. Gowen. p.21-60. (Me.Agr.Expt.Sta.Bul.306.)
- Milk testing in practice. H. M. Jones and T. H. Wright. p.417-431. (S.Dak.Agr.Expt.Sta.Bul.197.)
- Why costs of milk vary: Possibilities of cow testing associations. P. E. McNall and D. R. Mitchell. 24 p. (Wis.Agr.Expt.Sta.Bul.345.)

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DAIRY ANIMALS. Cattle.

Records and Testing. (Cont.)

1922. Motion pictures of the U. S. Department of Agriculture [including films on dairying]. 13 p. (U.S.Dept.Agr.Dept.Circ.233.)
1923. Official testing of dairy cattle in Oregon. H. N. Colman. 38 p. (Oreg.Agr.Expt.Sta.Circ.41.)

DAIRY ANIMALS. Calves.

1900. Skim milk calves. H. M. Cottrell, D. H. Otis, and J. G. Haney. p.117-132. (Kans.Agr.Expt.Sta.Bul.97.)
1901. Feeding skim-milk to calves. A. L. Haecker. p.22-29. (Nebr.Agr. Expt.Sta.Bul.68.)
1902. The relation of bovine tuberculosis to that of man, and its significance in the dairy herd. H. W. Conn.-- Results of experiments with tuberculous cows and the use of their milk in feeding calves. C. S. Phelps. 20 p. (Conn., Storrs, Agr.Expt.Sta.Bul.23.)
- Raising calves with skim milk. C. H. Eckles. p.33-52. (Mo.Agr. Expt.Sta.Bul.57.)
- The rearing of calves on milk substitutes. Harry Hayward. 12 p. (Pa.Agr.Expt.Sta.Bul.60.)
1904. Dairy observations: I, Dehorning; II, milking records; III, skim milk fed calves. C. L. Beach. 20 p. (Conn., Storrs, Agr.Expt.Sta. Bul.28.)
- Experiments with hard-fed calves. D. H. Otis. p.163-198. (Kans. Agr.Expt.Sta.Bul.126.)
1905. Raising calves on separator milk. H. T. French. 17 p. (Idaho Agr. Expt.Sta.Bul.48.)
- A test of calf rations. A. L. Haecker.-- Methods of controlling contamination of milk during milking. A. L. Haecker and C. W. Melick. 18 p. (Nebr.Agr.Expt.Sta.Bul.87.)
1907. Grains to supplement skim-milk for calves. J. R. Fain and M. P. Jarnagin. p.83-94. (Va.Agr.Expt.Sta.Bul.172.)
1908. Feeding "blackstrap" molasses to young calves. T. E. Woodward and J. G. Lee, jr. 40 p. (La.Agr.Expt.Sta.Bul.104.)
- Feeding experiments with cows and calves. John Michels. 16 p. (N.C.Agr.Expt.Sta.Bul.199.)

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1909. Rearing calves on skim-milk and supplementary feed. H. W. Norton, jr. 29 p. (Mich. Agr. Expt. Sta. Bul. 257.)
- Substitutes for skimmed milk in raising calves. E. S. Savage and G. W. Tailby, jr. p. 491-517. (N.Y., Cornell, Agr. Expt. Sta. Bul. 269.) Rev. and ext. by Bul. 304.
1910. The cost of feeding heifers. J. M. Trueman. p. 145-159. (Conn., Storrs Agr. Expt. Sta. Bul. 63.)
- The dairy calf at meal time. D. H. Otis. 14 p. (Wis. Agr. Expt. Sta. Bul. 192.)
1911. Raising calves on skim milk. C. H. Eckles and G. C. White. p. 99-106. (Mo. Agr. Expt. Sta. Circ. 47.)
- Substitutes for skimmed milk in raising calves, with supplement showing later development. E. S. Savage and G. W. Tailby, jr. p. 3-32. (N.Y., Cornell, Agr. Expt. Sta. Bul. 304.) Rev. and ext. of Bul. 269.
1913. Milk required to raise a dairy calf. W. J. Fraser and R. E. Brand. p. 437-458. (Ill. Agr. Expt. Sta. Bul. 164.)
- Pt. 1, Feeding dairy cows in Kentucky. J. J. Hooper. - Feeding standard for milk production. T. L. Haecker. - Pt. 2, Experiments in feeding dairy cows and calves. J. J. Hooper. p. 165-190. (Ky. Agr. Expt. Sta. Bul. 171.)
1915. Raising calves on skim milk. O. E. Reed. 11 p. (Kans. Agr. Expt. Sta. Circ. 48.)
- Substitutes for milk in the rearing of dairy calves; the cost of rearing a dairy cow. J. B. Lindsey. p. 49-71. (Mass. Agr. Expt. Sta. Bul. 164.)
- Raising the dairy calf. E. G. Woodward. 16 p. (Nebr. Agr. Expt. Sta. Bul. 149.)
- Raising dairy heifers: Cost, feeding and care. C. C. Hayden. 30 p. (Ohio Agr. Expt. Sta. Bul. 289.)
1916. Feeding dairy calves in California. F. W. Woll and E. C. Voorhies. p. 17-44. (Calif. Agr. Expt. Sta. Bul. 271.)
- Skim milk and milk substitutes for calf feeding. O. F. Hunziker and R. E. Caldwell. 104 p. (Ind. Agr. Expt. Sta. Bul. 193.)

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1917. Raising dairy calves. W. S. Cunningham. 8 p. (Ariz.Agr.Expt.Sta. Timely Hints for Farmers 127.)
- Feed and care of the dairy calf. R. S. Hulce and W. B. Nevens. 12 p. (Ill.Agr.Expt.Sta.Circ.202.)
- Raising dairy heifers: Cost of production is often underestimated. (Ohio Agr.Expt.Sta.Monthly Bul.v.II,no.9,p.291-298.)
- Feeding and management of dairy calves and young dairy stock. W. K. Brainerd and H. P. Davis. 20 p. (U.S.Dept.Agr.Farmers' Bul.777.)
1918. Dairy calves for veal. G. H. True and C. V. Castle. 7 p. (Calif. Agr.Expt.Sta.Circ.196.)
- Milk as the sole diet of ruminants. A. C. McCandlish. 11 p. (Iowa Agr.Expt.Sta.Res.Bul.43.)
- Rearing dairy calves. L. S. Gillette, A. C. McCandlish and C. H. Stange. 16 p. (Iowa Agr.Expt.Sta.Circ.50.)
- Winter rations for dairy heifers. C. H. Eckles. 54 p. (Mo.Agr. Expt.Sta.Bul.158.)
- Some factors influencing the rate of growth and the size of dairy heifers at maturity. C. H. Eckles and W. W. Swett. 56 p. (Mo. Agr.Expt.Sta.Res.Bul.31.)
- Wintering dairy heifers. R. E. Hunt. 20 p. (Va.Agr.Expt.Sta.Bul. 219.)
- Digestion of starch by the young calf. R. H. Shaw, T. E. Woodward and R. P. Norton. (U.S.Dept.Agr.Jour.Agr.Res.v.XII,no.9,p.575-578.)
1919. Experiments in calf feeding: Corn silage; whole milk dilutions. G. C. White and J. A. Keulling. p.91-136. (Conn., Storrs, Agr. Expt.Sta.Bul.102.)
- Appetite as a guide in feeding dairy calves. A. C. McCandlish. p.179-184. (Iowa Agr.Expt.Sta.Res.Bul.51.)
- A study of the birth weight of calves. C. H. Eckles. 11 p. (Mo. Agr.Expt.Sta.Res.Bul.35.)
- Raising calves on farms where whole milk is sold. W. W. Swett. 13 p. (Mo.Agr.Expt.Sta.Circ.83.)

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1920. The efficiency of milk substitutes in calf feeding. George Spitzer and R. H. Carr. 8 p. (Ind.Agr.Expt.Sta.Bul.246.)
1921. Feeding blackstrap molasses to young calves. R. C. Calloway. 22 p. (La.Agr.Expt.Sta.Bul.180.)

Dairy calves; consumption of food and gain by different breeds; general notes, feed and care. Earle Brintnall. 16 p. (Miss.Agr.Expt.Sta.Bul.200.)

Wintering dairy heifers. R. E. Hunt. 15 p. (Va.Agr.Expt.Sta.Bul.225.)

Goats.

1915. The casein and salts of goat's milk. A. W. Bosworth and L. L. Van Slyke. 15 p. (N.Y., State, Agr.Expt.Sta.Tech.Bul.46.)
1917. Goat's milk for infant feeding. W. H. Jordan and G. A. Smith.--
Practical study of goat's milk in infant feeding as compared to cow's milk. D. H. Sherman and H. R. Lohnes. 20 p. (N.Y., State, Agr.Expt.Sta.Bul.429.)

Popular ed. Goat milk good for babies. Summarized by F. H. Hall from Bul. by W. H. Jordan and G. A. Smith. 7 p.

1918. The milch goat. A. C. McCandlish and L. S. Gillette. 4 p. (Iowa Agr. Expt.Sta.Circ.42.)

Milk goats. E. L. Shaw. 36 p. (U.S.Dept.Agr.Farmers' Bul.920.)

1921. The milch goat in California. E. C. Voorhies. 31 p. (Calif.Agr.Expt. Sta.Bul.285,rev.) 1st ed., 1917.

Milk Goat News. San Francisco, Calif. Semi-monthly. \$1.50; Canada, \$1.75; Foreign, \$2.00.

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